



U.S. Department  
of Homeland Security

United States  
Coast Guard



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# **Guide for Administration of Merchant Marine Examinations**

## ***(Deck & Engineering Guide)***

**JUNE 2010**

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This Publication provides guidance for NMC evaluators and personnel who actively administer examinations and monitor applicants in the exam room

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From: D. C. STALFORT, CAPT  
CG-NMC

To: DISTRIBUTION

Subj: GUIDE FOR THE ADMINISTRATION OF MERCHANT MARINE DECK & ENGINE  
EXAMINATIONS (*DECK & ENGINEERING GUIDE*) MCP-MA-NMC2-03(01)

Ref: Code of Federal Regulations Title 46, Chapter 1, Subchapter B

PURPOSE. This manual provides guidance for personnel who monitor merchant marine applicants in the exam room of the Regional Examination Centers (REC). National Maritime Center (NMC) evaluators are to use this publication to determine which modules are to be administered for a given endorsement level and what training is acceptable in lieu of an examination module.

ACTION. Commanding officers of units with marine safety responsibilities should bring this manual to the attention of the maritime industry with interests in marine personnel issues and to institutions that offer U.S. Coast Guard approved training. This manual will be distributed by electronic means only. It is available on the World Wide Web at:  
[http://www.uscg.mil/nmc/training/deck\\_and\\_engineering\\_guide.pdf](http://www.uscg.mil/nmc/training/deck_and_engineering_guide.pdf)

DIRECTIVES AFFECTED. The previous edition of the *Deck & Engineering Guide* dated June 2009 is cancelled. This edition combines the *Deck & Engineering Guides* into a single document.

DISCUSSION.

The Examination Structure Sheets (ESS) contained in this manual reference the written examinations for each endorsement and document.

The Coast Guard has developed an electronic distribution system of examination modules to improve examination quality and productivity. This manual reflects these changes and complements the use of the electronic distribution system.

PROCEDURE.

The ESSs contained in this manual are effective June 2010 and the previous *Deck & Engineering Guide*, dated June 2009, is cancelled.

The ESS contains detailed information for each endorsement exam. Consult the ESS for unique directions, presentation order of examination modules and guidance on courses accepted in lieu of an examination module.

PROCUREMENT INFORMATION. Distribution will be provided by electronic means for local reproduction only from the Internet at:  
[http://www.uscg.mil/nmc/training/deck\\_and\\_engineering\\_guide.pdf](http://www.uscg.mil/nmc/training/deck_and_engineering_guide.pdf) Comments can be made to Commanding Officer, National Maritime Center (NMC-2), 100 Forbes Drive, Martinsburg, WV 25404 or by calling (304) 433-3400.

Dist: Commandant (CG-522)  
Areas (Ap, Pp)  
All District Commanders (P)  
All Sector Commanders  
All RECs

## INTRODUCTION

In its guidance on the Evaluation of Competence, the Seafarers Training, Certification, and Watchkeeping Code (STCW) states:

***“Recognizing the importance of establishing detailed mandatory standards of competence and other mandatory provisions necessary to ensure that all seafarers shall be properly educated and trained, adequately experienced, skilled and competent to perform their duties in a manner which provides for the safety of life and property at sea and the protection of the marine environment.”***

For reasons such as these the Coast Guard continues to view its written examinations in addition to the training and practical demonstrations as an essential part of the process in developing the mariner's competency.

This Publication has been designed primarily for the use of NMC evaluators and personnel who are actively engaged in overseeing applicants in the exam room. If you have any questions concerning the deck and engine department examinations or suggestions for improvements to the Exam Structure Sheets or other sections of this manual, please contact:

Mariner Training and Assessment Division (NMC-2)  
U.S. Coast Guard National Maritime Center  
100 Forbes Drive  
Martinsburg, WV 25404

Title 46 Code of Federal Regulations Part 10 instructs the Officer in Charge Marine Inspection (OCMI) to conduct a Professional Examination of applicants for original issues, raises in grade, increases in scope, and renewals of endorsements. The examination follows a determination by the OCMI that the applicant's training, appropriate practical demonstrations, and experience is satisfactory and they are eligible in all other respects. The purpose of this Publication is to help identify the appropriate professional examination for the OCMI's use, and provide guidelines for the uniform administration of the examinations.

If you need further information or assistance with respect to these Exam Structure Sheets, please do not hesitate to call the USCG National Maritime Center at:

POC: Engine Team Leader

Tel: (304) 433-3711

E-mail: [D05-DG-NMCETeam@uscg.mil](mailto:D05-DG-NMCETeam@uscg.mil)

POC: Deck Team Leader

Tel: (304) 433-3718

E-mail: [D05-DG-NMCDTeam@uscg.mil](mailto:D05-DG-NMCDTeam@uscg.mil)

Fax: (304) 433-3408

# **Guide for Administration of Merchant Marine Examinations**

## **Chapter One:**

**General Information: Pages 1-6 to 1-26**

## **Chapter Two:**

**Engineering Guide: Pages 2-1 to 2-35**

## **Chapter Three:**

**Deck Guide: Pages 3-1 to 3-84**

# **Chapter 1**

## **General Information**

### **Manual for the Administration of Merchant Marine Examinations**

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# **Table of Contents**

<b>Chapter 1:</b>	<b>General Information</b>	<b>Page</b>
<u><b>Instructions</b></u>		<u><b>8-13</b></u>
1. Examination Structure Sheet		8
2. Exam Room Materials		8
3. Exam Room Procedures		8
4. Maritime Academy Testing		8
5. Traveling Examination Teams		9
6. Duties of the Examiner		9
7. Exam Administration		9-10
8. Answer Sheets		10
9. Comments and Challenges		11
10. Appeal Procedure		11
11. Retest Policy		11-12
12. Coordination		12
13. Multiple Ratings		12
14. Orally Assisted Examinations		12
15. Renewal Examinations		12-13
16. Custody and Security		13
<u><b>Rules of the Exam Room (Applicant Form)</b></u>		<u><b>14</b></u>
<u><b>Comment-Challenge Sheet (Applicant Form)</b></u>		<u><b>15</b></u>
<u><b>Duties of an Examiner</b></u>		<u><b>16</b></u>
<u><b>Examiner Checklist</b></u>		<u><b>17</b></u>
<u><b>Orally Assisted Examinations (Additional Info)</b></u>		<u><b>18</b></u>
<u><b>Traveling Examination Teams (Additional Info)</b></u>		<u><b>19-23</b></u>
<u><b>Materials Allowed in the Exam Room (Deck Exams)</b></u>		<u><b>24-25</b></u>
<u><b>Sample Renewal Exam Letter</b></u>		<u><b>26</b></u>

# **INSTRUCTIONS**

## 1. Examination Structure Sheets (ESS):

The contents of each exam incorporating the use of test module(s) and the instructions for its administration are detailed in individual Exam Structure Sheets (ESS). There is an ESS for each officer endorsement and rating endorsement action for which an examination is required. Each examination is made up of one or more modules (tests). All the required modules for a particular officer endorsement and rating endorsement action are shown. An instance where particular modules are not required, further instructions are provided on the individual ESS. Depending on the officer endorsement and rating endorsement for which the applicant is to be examined, modules unique to a particular exam may be combined with generic modules, which are common to several exams. Each module is graded independently unless otherwise indicated.

## 2. Exam Room Materials:

Exam illustrations will be provided at the back of each exam module booklet. The list of authorized reference materials allowed in the exam room for Deck exams can be found on pages 1-24 to 1-25. 46 CFR Parts 1-199 and 33 CFR Parts 1-199 are the **ONLY** references allowed in the exam room for Engine exams. Examiners at the REC(s) should review the libraries to ensure that these publications, and **ONLY** these publications, are available to the applicant. **Regional Exam Centers (RECs) are responsible for keeping reference materials current.**

Only non-programmable calculators are permitted. Applicants may use calculators, but are not permitted to use preprinted forms during the examinations. All calculators must meet the following standards:

- a) It must not use pre-programmed strips or chips or any other pre-programmed device that may be inserted into the calculator.
- b) It may not be a permanently programmed specialty computer, such as a navigation computer. Computers capable of generating trigonometric functions, logs and antilogs, squares, cubes, and roots thereof, are acceptable provided they meet the other requirements.
- c) Any manually programmable calculator without simple erasure capability is not permitted.
- d) Any printed calculator tape must be turned in at the end of the exam with any scratch paper.

## 3. Exam Room Procedure:

When an application for examination is submitted, the applicant should be prepared to be examined on all the material applicable to the officer endorsement or rating endorsement for which the application has been made. Examinations may be administered only when all regulatory prerequisites are completed. To allow Exam Room Supervisors to manage their time and resources, it is recommended that applicants be required to make appointments for all exams. Subject to the Exam Room Supervisor's discretion, applicants may start the exam on any day the office is open. A limit of 3½ hours may be provided to each applicant to complete a test module. The examination fee set out in 46 CFR Table 10.219(a) in Sec. 10.219 must be paid before the applicant may take the first examination section.

## 4. Maritime Academy Testing:

To accommodate the special circumstances involved, the graduating class of State and Federal maritime academies may be examined by the respective Regional Exam Center (REC), at any time after the first semester of the senior year. Forty-five days prior to scheduled testing, the Regional Exam Center administering the exams will select the exams from the appropriate module from the MMLD prod. A request will then be made to the NMC-22, Exam Team, for review and approval of the selected exams prior to printing.



## 5. Traveling Examination Teams:

When planning the administration of an exam at an offsite location, the Regional Exam Center (REC) and the Traveling Exam Team (TET) may require support from NMC-2. Please ensure that a minimum advance notice of 30 days is provided in writing by e-mail or fax. The POC for Deck Exams is to be the Deck Team Leader, the POC for Engine Exams is to be the Engine Team Leader, with a copy to the Division Chief, NMC-2. Please see additional information at the end of this section (pages 19-23).

## 6. Duties of the Examiner:

- a. Reviews reference material to ensure that sufficient copies are available, that they are in satisfactory condition, that extraneous markings are removed, and that the material is stowed in an orderly fashion. When necessary, orders new reference material for addition to the library and purges outdated material.
- b. Ensures that consumables are adequate. Orders extra consumables when necessary.
- c. Checks examination room after closing for evidence of cheating and takes appropriate action to identify the cheater if evidence is found.
- d. Ensures that furniture in the exam room is adequate for intended use and in good, safe condition. If not, takes appropriate action to remedy.
- e. Maintains a daily log of the persons tested.
- f. Ensures that modules and completed answer sheets are filed with adequate security.
- g. Prior to test administration, visually confirm the correct format of the test module, including but not limited to margins, printing errors.
- h. Prior to test administration, visually confirm the presence of all required illustrations
- i. Prior to test administration, check the validity of each requested and downloaded module.

## 7. Exam Administration:

When administering an original examination or a re-examination for any officer endorsement or rating endorsement:

- a) An applicant must complete all exam modules by testing on consecutive days.
- b) An applicant may attempt as many modules as can be completed within the normal working hours of the examination room, provided a minimum of **TWO** modules are completed per day, with approximately 3½ hours allowed for each module.
- c) Administration of modules is to be in the order chosen by the applicant at the time the appointment to test was made. If no order is chosen, then the administration of the exams will be made in the order listed in the ESS.
- d) Where the ESS indicates two Engineering Modules labeled as Part I and Part II, they are to be graded individually and not to be considered as one module.
- e) **All** of the modules comprising an exam must be completed before beginning retakes of any failed modules.
- f) Applicants for any officer or rating endorsement should not be stopped from testing even if they fail one or two modules. This ensures that the applicant will not be penalized if there is any change to the crediting of the score of an examination module through the challenge process or if a correction to an exam content is determined to be necessary.

g) If an applicant for an unlimited officer endorsement fails **three (3)** modules at any time during the examination, the candidate is **NOT** to be permitted to continue testing on any ensuing module for that testing series.

h) A full examination is required in all cases in which an applicant has applied for:

i) a change in tonnage groups: **Tonnage Groups** are defined as:

$$\begin{aligned}\text{Any Gross Tons (AGT)} &= \text{GT 1600 GRT /3000 ITC} \\ \text{500 GRT - 1600 GRT} &= \text{1200 - 3000 ITC} \\ \text{NMT 200 GRT} &= \text{NMT 500 ITC}\end{aligned}$$

ii) A raise in grade: **Raise in Grade** is defined as an increase in the level of authority and responsibility associated with an endorsement.

iii) a change in horsepower limitations (Increase in Scope)

iv) Exams required to increase the scope of an Existing officer endorsement are listed on each individual ESS for the specific endorsement action. Courses approved in lieu of modules for the action of increasing scope are not permitted to be used in lieu of exam modules where full exams are required. **Increase in Scope** is defined as a change in horsepower or tonnage limitations, or geographic route restrictions.

v) Approval to Test Letters, (ATT), are valid for one year from the date of issuance. All exam requirements must be met within the period of validity of an applicants ATT letter. Once the ATT letter expires a new application must be made and required fees paid. **Any exam scores from prior exam cycles will NOT be carried over once an ATT letter expires.**

#### 8. Answer Sheets:

To gather statistics on the exam questions, NMC-22 is scanning the graded answer sheets into a database.

- a) All original answer sheets must be mailed to the National Maritime Center monthly or when deemed appropriate by the Regional Exam Centers (RECs).
- b) It is essential that an original Merchant Marine Examination Question Selection/Answer Sheet (CG-5164) be utilized for examinations. Copied or reprinted answer sheets fail to scan properly.
- c) The candidate **must darken** the appropriate spaces for their **social security number, module number** and **test number** at the top of the form as well as their choice of answer for each question.
- d) It is the responsibility of the REC examiner to accept **COMPLETED ANSWER SHEETS ONLY. DO NOT ACCEPT** for grading any CG-5164 whose information block at the top of the form is incomplete. **Do not make any administrative marks in the answer fields.**
- e) Answer Sheets (CG5164) are available from:

**USCG Engineering Logistics Center**

**2401 Hawkins Point Road**

**Baltimore, Maryland 21226-5000**

**Phone: 410-576-2561**

**P.O.C.: Fran Devonish**

**\*\* Please reference FSN 7530-01-GF2-8420 when making inquiries\*\***

## 9. Comments and Challenges:

If an applicant believes there is something wrong with a question that prevents it from being answered correctly, they must state in writing all the details regarding the discrepancies on a **Comment-Challenge** sheet.

The applicant **must provide** the reasons for the challenge, all calculations for math problems and what is believed to be the correct answer. All comments, even if they will not affect the candidate's grade, are valuable and will be used to improve the quality of the questions used on future tests.

If an applicant fails the exam module and has submitted comment sheets with the completed answer sheet, each comment regarding a question not receiving credit will then become a *Challenge* for that question.

If the applicant fails the examination module by no more than one question, they will be given the opportunity to review each question for which credit was not given. Immediately after the review and **prior** to leaving the exam room, the candidate may submit a challenge sheet for no more than two questions as indicated above. These two *challenges* are in addition to any *comments* submitted prior to the answer sheet being graded that subsequently change from a *comment* to a *challenge*. Once the applicant has reviewed his or her answer sheet and leaves the exam room for **ANY REASON** before submitting their challenge, the challenges will not be accepted.

Examiners will submit to NMC-22 via fax or e-mail the applicant's **Comment-Challenge** sheet and answer sheet for the exam in question.

## 10. Appeal Procedure:

IAW 46CFR 1.03-40 Any person directly affected by a decision or action of an officer or employee of the National Maritime Center (NMC) involving any of the marine safety functions listed in §1.01-15(c) of this subpart may, after requesting reconsideration of the decision or action by the NMC, make a formal appeal of that decision or action, via the NMC, to the Director of Prevention Policy, Commandant (CG-54), in accordance with the procedures contained in §1.03-15 of this subpart. The decision of the Director of Prevention Policy, Commandant (CG-54), on such an appeal will constitute final agency action.

With regard to the exam challenge procedure, the challenge is the re-consideration. If a mariner is unsatisfied with the result of their challenge they have the right to appeal the decision as outlined in the above paragraph.

IAW 46CFR 1.03-15(c) When making a formal appeal of a decision or action, as permitted by this subpart, such appeal must be submitted in writing and received by the authority to whom the appeal is required to be made within 30 days after the decision or action being appealed, or within 30 days of the last administrative action required by this subpart. Upon written request and for good cause, the 30 day time limit may be extended by the authority to which the appeal is required to be made.

## 11. Retest Policy.

- a) If an applicant for an **upper level officer endorsement** as defined in 46 CFR 10.107 fails three or more sections, a complete re-examination must be administered. On the subsequent exam, if the applicant again fails three or more sections, at least **3 months** must lapse before another complete examination is attempted, and a new examination fee is required. If an applicant fails one or two sections of an examination, the applicant may be retested twice as is necessary on each failed section during the next 3 months. If the applicant does not successfully complete each failed section within the **three (3)** month period, a complete examination must be administered after a lapse of at least three (3) months from the date of the last retest, and a new examination fee is required. The 3 month retest period may be extended by the OCMI if the applicant presents discharges documenting sea time which prevented the taking of a retest during the 3 month period. The retest period may not be extended beyond 7 months from the initial examination (46 CFR 11.217(a)(1)).

- b) The scheduling of examinations for lower level officer endorsement as defined in 46 CFR 10.107 will be at the discretion of the OCMI. In the event of a failure, the applicant may be retested twice whenever the examination can be rescheduled with the OCMI. The applicant must be examined in all of the unsatisfactory sections of the preceding examination. If the applicant does not successfully complete all parts of the examination during a 3-month period from the initial test date, a complete reexamination must be taken after a lapse of at least 2 months from the date of the last retest, and a new examination fee is required (46 CFR 11.217(a)(2)).
- c) Upon application for a rating endorsement, any required examination will be given as soon as practicable. An applicant for a rating endorsement who has been duly examined and refused a certificate by the Coast Guard may come before the Coast Guard for reexamination at any time after the date of the initial examination. The Coast Guard sets the time of reexamination based on the applicant's performance on the initial examination. However, the maximum waiting period after the initial failure will be 30 days, and the maximum waiting period after a second or subsequent failure will be 90 days. An applicant who has been examined and refused a certificate by the Coast Guard may not again make application for examination until 30 days after the applicant's last failure of an examination or reexamination (46 CFR 12.02-17).
- d) Applicants failing several portions of an examination or those failing one module with an extremely low score should be encouraged to study before attempting a reexamination.
- e) Retest exam modules are required to be separate and different than the original or previous test modules.

## 12. Coordination:

When situations arise that require a departure from these instructions please request guidance from the National Maritime Center (NMC-2) in writing (e-mail is acceptable). State the officer endorsement or rating endorsement for which application has been made, and why the applicant's circumstances are different from the norm. NMC will respond in writing to all Regional Exam Centers (RECs). In a spirit of fairness and in order to foster good customer relations, all applicants are to be treated the same, regardless of where the applicant is being served.

## 13. Multiple Ratings:

When a candidate requires testing for multiple ratings, the following method for assigning modules will be employed:

- a) Compare all modules from each of the applicable ESS
- b) Modules duplicated only need to be administered once
- c) All other modules for both ratings are required

## 14. Oral Assisted Examinations:

IAW 46 CFR 11.205(f)(i). Any applicant for a deck or engineering endorsement limited to vessels not exceeding 500 gross tons, or an endorsement limited to un-inspected fishing industry vessels, may request an oral-assisted examination in lieu of any written or other textual examination. If there are textual questions that the applicant has difficulty reading and understanding, the OCMI will offer the oral-assisted exam. Each endorsement based on an oral-assisted examination is limited to the specific route and type of vessel upon which the applicant obtained the majority of service.

IAW 46 CFR 12.15-9(a)(c). Each applicant for certification as a qualified member of the engine department (QMED) in the rating of oiler, watertender, fireman, deck engineer, refrigeration engineer, junior engineer, electrician, or machinist shall be examined orally or by other means and only in the English language on the subjects listed in 46 CFR 12.15-9(b). The applicants' general knowledge of the subjects must be sufficient to satisfy the examiner that he/she is qualified to perform the duties of the rating for which he/she makes application. Please see additional information at the end of this section (Page 1-18).

## 15. Renewal Exams:

In accordance with 46 CFR 10.227 : Renewal exams are required only if applicant does not have the required sea service for renewal, does not have closely related shore side experience, or has not taken an approved refresher course. **Deck officer endorsements renewing with closely related shore side experience service must complete a Rules of the Road Examination (see 46 CFR 10.227(i)(D)).** Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

In accordance with 46 CFR 10.227 (e) : Applicants for renewal who do not meet the sea service or exam requirements May be issued a Document of Continuity. Documents of continuity do not expire and are issued solely to maintain an individual's eligibility for renewal. A document of continuity does not entitle an individual to serve as a merchant mariner. A holder of a document of continuity may obtain a properly endorsed, valid MMC at any time by satisfying the requirements for renewal.

A sample copy of the Renewal Exam Letter issued by the Regional Exam Center is provided on page 1-26 of this manual.

## 16. Custody and Security

Compromise of an examination module causes the removal of that module from service and requires that a replacement be generated. To reduce the possibility of compromise, standard security procedures must be instituted at each Regional Exam Center (REC). It is essential that proper security procedures be conscientiously executed by all involved parties. The following procedures should be followed:

- a) Examination Log: A log of all applicants shall be maintained.
- b) Compromises: A compromise occurs when the possibility exists that the contents of a module have been exposed to unauthorized personnel. If this situation occurs, notify the Exam Administration Branch, NMC-2, at the National Maritime Center. Advise the NMC-2 staff of the situation and the probability of actual exposure to unauthorized personnel.
- c) Stowage: Properly stow any printed modules in a lockable container such as a safe or file cabinet. At the close of the workday, account for any and all printed modules.
- d) Destruction of Examination Materials: Applicants shall return to the examiner all exam booklets, scrap paper, charts and other work materials used during the examination process. This material should be destroyed, following any pending challenges have been made, in a manner that results in an unusable format.
- e) Receipt of Printed Modules: Upon receipt of printed modules for special situations such as supplying a Traveling Exam Team (TET), an inventory of the shipment shall be taken and compared with the forwarding letter. Any deficiencies, such as damage, evidence of tampering, etc. shall be reported to the Exam Administration Branch, NMC-2, at the National Maritime Center.

## **RULES OF THE EXAMINATION ROOM**

1. The normal work hours for this REC are \_\_\_\_ to \_\_\_\_\_. The exam room will be opened from \_\_\_\_ to \_\_\_\_\_.
2. Handbags, briefcases, pagers, cellular phones, books, notes, etc. are not allowed in the Exam Room. The applicant is to provide their own plotting equipment. Programmable calculators are not allowed in the exam room. During the examination, the applicant may not refer to any material other than that specifically authorized by the United States Coast Guard.
3. Any applicant engaged in any form of cheating during the exam, such as, referring to concealed notes, communicating with or copying work from other applicants, removing written material from the exam room, or any other dishonest practice, will be dismissed from the exam room and will be considered to have failed the entire exam. A re-exam will not be permitted for six months. Those applicants already holding a Merchant Mariner's Document or Coast Guard endorsement may be summoned to appear before an Administrative Law Judge where their endorsement may be suspended, or revoked, or other penalties assessed.
4. Applicants are not permitted to leave the exam room before a module is completed. Head (restroom) calls are not normally permitted. However, if required, the applicant shall be escorted to insure that no attempt is made to access additional information related to the exam. See Item #3. Upon completion of a module, all reference publications must be returned to their proper location in the exam room. The answer sheet and scratch paper is to be placed inside of the front cover of the booklet and given to the Examiner.
5. Eating and drinking is not permitted in the exam room.
6. Administration of modules is in the order chosen by the applicant at the time the appointment to test was made or before the first module is administered. If no order was chosen, then the administration of the modules will be made in the order listed in the ESS. An applicant may attempt as many modules as can be completed within the normal working hours of the examination room, provided a minimum of two modules are completed per day, with 3½ hours allowed for each module. **All modules must be completed on consecutive days within the same week.**
7. Once a module has been started, the applicant is obligated to complete it. If an answer sheet is submitted with unanswered questions, these questions will be considered to have been answered incorrectly, which may result in a failing score.
8. Do not write or mark in the test booklets or any reference material. If you notice any marks in a test booklet or in any reference material, please notify the Examiner.
9. The applicant must darken the appropriate spaces for their **social security number, module number** and **test number** at the top of the answer sheet form (CG-5164). The Examiner **WILL NOT ACCEPT** for grading, any answer sheet whose information block at the top of the form is incomplete.
10. If you feel a question is faulty, unclear, or has no correct answer indicated, choose the best answer, mark the answer sheet accordingly, and complete a **COMMENT-CHALLENGE SHEET** provided by the Examiner. Explain as clearly as possible the specific concern or objection to the question. If the applicant feels there is a better answer, he/she must **show** how they arrived at your answer including all **computations** for navigation and other mathematical problems. **An answer must be indicated on the answer sheet.** Once the applicant has reviewed the answer sheet and leaves the exam room for **ANY REASON** before submitting their challenge, the challenge will not be accepted.
11. The Examiner is always available to assist the applicant. However, the Examiner cannot discuss question content with the applicant. See Item 10.

**I have read and understand the rules as stated above. I also understand that I MUST complete the entire exam, including retests if required, WITHIN 90 DAYS of the beginning of the exam cycle.**

**SIGNATURE:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

## COMMENT - CHALLENGE SHEET

(For Coast Guard use only) \_\_\_\_\_ COMMENT \_\_\_\_\_ CHALLENGE

APPLICANT'S NAME \_\_\_\_\_

MODULE NAME \_\_\_\_\_

MODULE NUMBER: \_\_\_\_/\_\_\_\_/\_\_\_\_/\_\_\_\_/\_\_\_\_ – \_\_\_\_/\_\_\_\_/\_\_\_\_/\_\_\_\_ QUESTION NUMBER: \_\_\_\_\_

If you believe there is something wrong with a question that prevents it being answered correctly, i.e., no correct answer, or that you believe there is more than one correct answer shown, or the question is poorly worded, etc, please give all the details below. **Include** your reasons and **all calculations** for math problems such as pump capacity, navigation, stability, or cargo. **Provide** what you believe to be **the correct answer**. Even if your comments will not affect your grade, they are considered very valuable and will be used to improve the quality of the questions used on future tests. If you fail this exam and submit your comments with your completed answer sheet, for each comment sheet for a question you did not receive credit will then become a challenge for that question. Further, if you fail the examination module by no more than one question, you will be given the opportunity to review each question for which credit was not given. Immediately after the review and **prior** to leaving the exam room, you may submit a challenge sheet for no more than two questions as indicated above. These two *challenges* are in addition to any *comments* submitted prior to the answer sheet being graded that subsequently change from a *comment* to a *challenge*. Once you have reviewed your answer sheet and leave the exam room for **ANY REASON** before submitting a challenge, the challenges will not be accepted.

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

## **DUTIES OF AN EXAMINER**

The examiner will verify the order of modules either at the time the appointment to test has been made or prior to when the first module is administered. At the appropriate time, the examiner selects the modules from MMLD PROD and downloads the appropriate modules AND answer keys in preparation for the applicant's examination. Only the module(s) being presented to the applicant for testing that day are to be downloaded and printed. No modules are to be downloaded, printed and stored for a period of more than 24 hours prior to test administration, (unless to facilitate off-site testing).

On the appointed morning after the appropriate exam fees are paid, the examiner identifies the applicant, reviews with the applicant the test procedures, reference material that may be available, and the operating procedures and rules of conduct during the exam. The applicant is given the initial module, a blank answer sheet with complete instructions for completion of required fields and instructions specific to the particular test module. After the applicant completes the module and submits the answer sheet, the examiner is to perform an initial review to ensure that it is completed correctly. The applicant may then be given another test module if time permits and the applicant desires, or further testing may be deferred until the afternoon session or the following morning.

The answer sheet is scored, the applicant informed of the results, and the results entered on the appropriate record. If the applicant has failed the module by no more than one question, the examiner will allow a review of the module and submission of a challenge by the applicant. If the applicant desires to submit a challenge, they cannot leave the examination room until the challenge process is completed. No outside references may be utilized by the applicant for the purpose of substantiating a challenge. If a challenge is submitted, the examiner faxes it to the National Maritime Center for review. Upon receipt of the results of the review, the applicant is advised. These procedures continue until the applicant has completed all modules that are part of the examination.

During the actual testing, the examiner oversees the exam room to preclude cheating, answers procedural questions, and provides information if the applicant desires to comment on a question. If cheating is detected, the examiner takes steps to bar the applicant from further testing for six months. At the end of the workday, **the examiner accounts for all modules used; destroys used modules, scrap paper, and used charts; and prepares for the next day of testing.**

After the final module is completed, examiner will make entries into MMLD and send email to NMC-5 evaluator for endorsement issuance. If the applicant failed the examination, the applicant is advised of the next steps in the testing process and another examination date is scheduled if the applicant remains eligible.



## **EXAMINER CHECKLIST**

1. The examiner downloads the appropriate test modules **AND** answer keys from MMLD PROD in preparation for the applicant's examination. Check exam for the correct number of illustrations and format. Notify the NMC Exam Team of any discrepancies.
2. Review reference material to ensure that sufficient copies are available.
3. Ensure that consumables (answer sheets, scrap paper, pencils) are adequate.
4. Ensures that furniture in the exam room is adequate for intended use and in good, safe condition. If not, takes appropriate action to remedy.
5. Ensure that the applicant has read and signed a copy of "Rules of the Examination Room".
6. Ensure that the applicant has darken the appropriate spaces for their social security number, module number and test number at the top of the form as well as their choice of answer for each question.
7. Any Comment-Challenge submitted to NMC-2 must include a copy of the applicant's graded answer sheet.
8. Upon completion of testing, the examiner accounts for all modules used. Destroy used modules, scrap paper, and used charts promptly.
9. Upon completion of each module, examiner will enter score into MMLD.
10. After the final module is completed, examiner will make entry into MMLD and notify NMC-5 evaluator for endorsement issuance
11. Checks examination room after closing for evidence of cheating and takes appropriate action to identify the cheater if evidence is found.

### **Orally Assisted Examinations**

Orally assisted examinations are permitted by 46 CFR 11.205(i) <sup>1</sup>. Applicants should attempt the standard written examination initially. If they demonstrate difficulty in reading, they may test with an orally assisted examination. This is a time consuming process. Encourage applicants to test with the standard modules and advise them of the limitations to be placed on the endorsement. **Only the OCMI/REC is authorized to administer an orally assisted examination.** The following procedures shall be followed in administering an orally assisted examination:

- a. **Standard Modules.** Candidates will normally be tested with standard examination modules unless a locally prepared module is appropriate.
- b. **Reading of Questions.** The examiner shall read the questions to the applicant exactly as they are printed in the module. Read the questions in a normal tone of voice with the proper inflections as indicated by normal usage of the English language. When reading the four possible answers, read each one with the same tone. Do not stress or give any other indication of the correct answer. Questions may be repeated once to ensure understanding by the applicant. Do not discuss the content or meaning of either the questions or the possible answers.
- c. **Recording of Answers.** Record the answers on a standard answer sheet. If standard modules are used to test the applicant, a notation to this effect shall be enclosed in the applicant's file. If locally prepared modules are used, the subjects included in the test must be listed in the file as indicated in 46 CFR 10.205(i).
- d. **Renewal of Endorsements.** Endorsements issued as a result of an orally-assisted examination may be renewed through an oral-assisted renewal exercise.

<sup>1</sup> 46 CFR 11.205 (f)(1)(i): “Any applicant for a deck or engineer officer endorsement limited to vessels not exceeding 500 GRT, or an officer endorsement limited to uninspected fishing-industry vessels, may request an oral-assisted examination in lieu of any written or other textual examination. If there are textual questions that the applicant has difficulty reading and understanding, the OCMI will offer the oral-assisted examination. Each officer endorsement based on an oral-assisted examination is limited to the specific route and type of vessel upon which the applicant obtained the majority of service.”

## **TRAVELING EXAMINATION TEAMS**

Since the mid-1980's the Coast Guard has employed the use of Traveling Examination Teams (TETs) in an effort to provide qualified mariners, located in regions of considerable distance from an REC, the ability to take required examinations without having to travel. This longstanding practice continues today and outlined below are the steps necessary to request a TET:

- 1) A TET is appropriate whenever a group of at least 20 applicants in one remote area have been determined to be fully qualified for examination, e.g. *'Approved to Test'*. A remote area is one that that is more than **150 miles** from the nearest REC.

- 2) Submit a written TET request to:

*Commanding Officer  
United States Coast Guard  
National Maritime Center (NMC-11)  
100 Forbes Drive  
Martinsburg, WV 25404  
Attn: TET Request*

**Or**

*D05-DG-NMCTETRequest@uscg.mil*

- 3) All TET requests must be received at least twenty (20) days prior to the requested examination date and shall include a complete list of qualified applicants (first name, middle name, last name and mariner reference number).
- 4) All TET requests shall also include signed Letter of Undertaking (LOU). See Figure 2 sample LOU. Title 46 United States Code 7504 authorizes the reimbursement of Coast Guard expenses incurred in conducting credentialing services at a location other than an REC. Accordingly, before services can be scheduled this office must be assured that the Coast Guard will be reimbursed for the expenses incurred e.g. *travel and subsistence expenses*.
- 5) Additional TET trips (including foreign TET trips) may be scheduled at the discretion of the Officer in Charge, Marine Inspection (OCMI).
- 6) Except for trips made to the schools receiving federal aid under 46 CFR Part 310 for the examination of students as required by 46 CFR 310.3(b)(2), or those examined at the U.S. Merchant Marine Academy, all TET trips will be conducted on a reimbursable basis.
- 7) The following procedures will apply to all TET trips:
  - a) Travel Order Number (TONO). When a TET trip is warranted, RECs shall forward a request for a TONO(s) and accounting data to NMC-3. This request should be made by E-Mail or telefax. If the TET trip is approved, a TONO(s) will be issued by NMC-3.

- b) Letter of Undertaking (LOU). A single billing source must be provided for each group of applicants. This source may be an individual, organization, or company who agrees to reimburse the Coast Guard. This individual, organization, or company shall submit a LOU that must be received by the REC before the commencement of any travel.
- c) Travel Log. A travel log shall be maintained for each TET trip. If two or more groups are tested on the same trip, the completed log must reflect how the total chargeable expenses should be prorated among the groups (See Figure 3). Travel logs should be retained at the REC.
- 8) **Billing:** To facilitate billing for the TET trip, the following material shall be submitted to NMC-3 upon completion of the trip:
- a) Letter(s) of undertaking;
  - b) Copy of travel orders (CG-4251);
  - c) Copy of travel voucher or sub voucher (DD 1351-2); and
  - d) Copy of travel summary of expenses from HRSIC
- 9) **Acceptance of In-Kind Travel and Travel-Related Expenses:** The acceptance of company or applicant supplied meals, transportation, or lodging is prohibited, unless no other arrangements (e.g., for reimbursement in accordance with 46 U.S.C. 7504 and the procedures set forth in paragraph 6.D. of this Volume) can be made; and the acceptance of such expenses complies with the requirements of the Standards of Ethical Conduct for Employees of the Executive Branch, 5 CFR 2635. If it is necessary to accept in-kind and travel-related expenses, prior approval shall be obtained from NMC-3. Remember that the examination procedure is the only means available to the Coast Guard for determining an applicant's professional competence. Thus, the same vigilance used in the REC examination room must be maintained in external relationships with those requesting TET assistance.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Dear Sir:

Title 46 United States Code 7504 authorizes the reimbursement of Coast Guard expenses incurred in conducting licensing and/or seaman documentation services at a location other than at the Regional Examination Center. That reimbursement is limited to travel and subsistence expenses.

Accordingly, before the service you have requested in your (letter) (telephone call) of \_\_\_\_\_ can be scheduled, this office must be assured that the Coast Guard will be reimbursed for the expenses incurred. This assurance may be provided by completing and signing the enclosed Letter of Undertaking and returning it to this office. The letter also certifies that you will provide adequate testing facilities for the requested service.

The following conditions must normally be met before a TET will be authorized:

1. There are at least 20 applicants whose applications have been evaluated and found to be qualified.
2. A TET trip will normally be provided only for locations in excess of 150 miles from this office or another TET site.
3. The completed application and supporting documents for each individual must be received by this office at least ten working days prior to the anticipated testing date.
4. Only individuals with previously approved applications will be examined.

Sincerely,

Encl: (1) Letter of Undertaking

**FIGURE 2: SAMPLE LETTER OF UNDERTAKING (LOU)**

To: Officer in Charge, Marine Inspection \_\_\_\_\_  
(REC zone) \_\_\_\_\_

\_\_\_\_\_  
(Date)

LETTER OF UNDERTAKING

I agree to reimburse the U.S. Coast Guard for all travel and per diem costs incurred in conjunction with the Traveling Examination Team services performed at \_\_\_\_\_ on \_\_\_\_\_.

I further understand that I must provide suitable testing facilities for these testing services.

\_\_\_\_\_  
(signature and title)

Name and Address:

\_\_\_\_\_  
(for billing)  
\_\_\_\_\_

\_\_\_\_\_  
Daytime telephone:

**FIGURE 6-3: TET TRAVEL LOG**

EXAMINER: \_\_\_\_\_ TONO: \_\_\_\_\_ DATES OF TRIP: \_\_\_\_\_

Applicant	Billing Address	Location of Visit	Number of Days	% of trip	Mileage	Meals/Lodging

## **MATERIALS ALLOWED IN THE EXAM ROOM (DECK EXAMS)**

The following charts and materials are required/allowed in the examination room for use by the **Deck** officer endorsement applicant with all except the Rules of the Road module.

### **Order replacement copies through the Defense Logistics Agency /WEBREQ :-:**

<http://www.dscr.dla.mil/rmf/>

<b><u>Publication</u></b>	<b><u>National Stock Number (NSN)</u></b>
Chart 12221TR – Chesapeake Bay (Training)	7642-01-401-4083
Chart 12354TR – Long Island Sound (Training)	7642-01-400-7618
Chart 13205TR – Block Island Sound (Training)	7642-01-400-7619
Chart 18531 – Columbia River	7642-01-401-1617
Great Circle Tracking Chart WOXZC5270	7642-01-400-9540
Great Circle Tracking Chart WOXZC5274	7642-01-400-9543
Publication No. 102 – International Code of Signals	7642-01-400-8462
Light List Volume V – Mississippi River System (recent edition)	7642-01-401-1120
Maneuvering Board WOBZP 5090	7642-01-400-9445
Plotting Sheet VPO SX001 – Universal	7642-01-400-9344
Plotting Sheet WOBZP 923 (17° - 24°)	7642-01-400-9447
Plotting Sheet WOBZP 924 (23° - 30°)	7642-01-400-9453
Publication No. 229 – Volume 2, latitudes 15°- 30°	7642-01-400-9225
Publication No. 117 – Radio Navigational Aids	7642-01-401-0071

### **For product information & ordering:**

National Aeronautical Charting Office (NACO) Sales 1-800-638-8972

Go to website <http://naco.faa.gov/ecompc/Catalog.aspx?a=NAUT+NIM> to order online. Although most NGA navigational publications are no longer offered in printed form from US Government sources, authorized reproductions of these publications can still be purchased from commercial vendors. Known commercial vendors of authorized reproductions are listed below:

ProStar Publications Inc.

Maryland Nautical

Landfall Navigation

American Nautical Services

Waypoint

Safe Navigation, Inc.

### **Order from the National Weather Service (301) 713-1677 x 129:**

Ship's Code Card, Form WS TA B-O-7 and Ship's Weather Observations WS FORM B-80

### **Should be distributed automatically by the GPO (202) 512-1800 :**

#### **Code of Federal Regulations**

33 CFR Parts 1 to 124	46 CFR Parts 90 to 139
33 CFR Parts 125 to 199	46 CFR Parts 140 to 155
46 CFR Parts 1 to 40	46 CFR Parts 156 to 165
46 CFR Parts 41 to 69	46 CFR Parts 166 to 199
46 CFR Parts 70 to 89	49 CFR Parts 100 to 185
CIM 16616.6A, Chemical Data Guide	



**Deck Exam Reference Materials (continued)**

**For “in house” help call:**

P.O. Jennifer Cokran (CGHQ)

Telephone (202) 475-3520

**Available from any one of the three Corps of Army Engineer Map Sales Offices listed below:**

Flood Control and Navigation Maps of the Mississippi River, Cairo, IL to the Gulf of Mexico (Ed. 2007)

U.S. Army Engineer District - Memphis, TN – (901) 544-3351

U.S. Army Engineer District – Vicksburg, MS – (601) 634-5710

U.S. Army Engineer District – New Orleans, LA – (504) 862-1823

**Available from the Examination Team at NMC:**

COMDTPUB P16721.29	Operating Manual DEEP DRILLER (MODU exams)
COMDTPUB P16721.30	Operating Manual COASTAL DRILLER (MODU exams)
COMDTPUB P16721.31	Stability Data Reference Book
COMDTPUB P16721.32	Manual for loading the M/V GRAND HAVEN (Great Lakes exams)
COMDTPUB P16721.38	Reprints from the Light Lists and Coast Pilots
COMDTPUB P16721.46	Reprints from the Tide Tables and Tidal Current Tables
HO PUB No.9	The American Practical Navigator, Volume II – 1981 Edition
GPO SN 040-000-00418-1	Training Nautical Almanac

**May be locally produced:**

Stability work sheets  
Radar plotting sheets

**May be provided by the applicant:**

Star Finder – 2102-D or equivalent  
Calculator – See Exam Room Materials Section of the Instructions for rules concerning calculator use.  
Plotting tools – i.e. dividers, triangles, nautical slide rule

## **Figure 3: Sample Renewal Letter**

U.S. Department of  
Homeland Security

United States  
Coast Guard



Commanding Officer  
United States Coast Guard  
National Maritime Center

100 Forbes Drive  
Martinsburg, WV 25404  
<http://www.uscg.mil/nmc>

Date:

### **RENEWAL OPEN-BOOK EXAM(S)**

Mariner's Last Name:

Mariner#:

This letter is in response to your application for renewal of your Merchant Mariner Credential. To fulfill your professional requirements for renewal of your credential you must complete the enclosed open-book renewal exercise(s). Enclosed you will find the following modules:

You may use any reference material to complete the examination. A grade of **90%** is required to pass each module. **Answer sheet(s) and examinations must be returned to the Regional Examination Center.**

**Once you receive your examinations, you have a total of three (3) months from the date of this letter to complete the exam cycle (this includes 2<sup>nd</sup> and 3<sup>rd</sup> attempts).**

#### **Retest Policy.**

a) If after your first attempt, you do not receive a passing score (90%) you will be sent a new examination(s) for a re-test, (provided you are still within the three (3) month test cycle). If you do not receive a passing score on your second attempt, you will receive a third and final examination(s), (provided you are still within the three (3) month test cycle).

b) For **unlimited endorsements** if you do not successfully complete all parts of the examination during the three (3) month period from the date the open book exam was sent, a complete re-examination must be taken no sooner than (3) months from the date of the last retest, and a **new examination fee** is required. *Reference 46CFR 11.21.* Payment can be made at [www.pay.gov.com](http://www.pay.gov.com); select agency list; United States Coast Guard; Merchant Mariner User Fee Payment - submit a copy of the receipt to the Regional Exam Center.

c) All **other examinations** if you do not successfully complete all parts of the examination during a (3) month period from the date open book exam sent, a complete reexamination must be taken no sooner than (2) months from the date of the last retest, and a **new examination fee** is required. *Reference 46 CFR 11.217.* Payment can be made at [www.pay.gov.com](http://www.pay.gov.com); select agency list; United States Coast Guard; Merchant Mariner User Fee Payment - submit a copy of the receipt to the Regional Exam Center.

d) All testing including retesting must be completed within the original National Maritime Center approval period of 1 year, the above applies to the administration of the exams and does not reduce or extend the original 1 year approval period.

If you have any questions, please feel free to contact the NMC at 1(888) 427-5662.

**Chapter 2**  
***Engineering Guide***

**Manual for the Administration of  
Merchant Marine  
Engineering Examinations**

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# Table of Contents

Chapter 2:	Engineering Guide	Page
------------	-------------------	------

General Instructions for the Administration of Engineering Exams	4
<u>Summary of Examination Modules for Engineering</u>	<u>5</u>

## SECTION 1

**Unlimited Engineer Officer Endorsement** **6-18**

Administration of Unlimited Horsepower Engineering Examinations 7

---

Examination Structure Sheets Index
8

---

Quick Reference: Unlimited Endorsement Subject Modules

9-10

Examination Structure Sheets–Unlimited Engineers:

---

Third Assistant Engineer
11,12

Second Assistant Engineer	13,14
---------------------------	-------

First Assistant Engineer	14,15,16
--------------------------	----------

Chief Engineer	16,17,18
----------------	----------

Renewals	18
----------	----

## SECTION 2

**Limited Engineer Officer Endorsement** **19-26**

Administration of Limited Horsepower Engineering Examinations 20Examination Structure Sheets Index 21

---

Quick Reference: Limited Endorsement Subject Modules

22-23

### Examination Structure Sheets-Limited Engineers:

Assist. Engineer / DDE Unlimited 24

Chief Engineer, Limited, Near Coastal	24
---------------------------------------	----

Chief Engineer, Limited, Oceans 24

---

Engineer, Limited, OSV
25

Chief Engineer, Limited, OSV 25

DDE, 1000 / 4000 HP	25
---------------------	----

---

Assist. Engineer, Limited, UFIV
26

Chief Engineer, Limited, UFIV 26

Renewal - Limited	26
-------------------	----

### SECTION 3

**MODU Engineer Officer Endorsements** **27-30**Administration of MODU Engineering Examinations 28

Quick Reference: MODU Endorsement Subject Modules 29

Examination Structure Sheets–MODU Engineers:

---

Assist. Engineer, Limited, MODU
30

---

Chief Engineer, Limited, MODU
30

Renewal - MODU	30
----------------	----

## **SECTION 4**

<b><u>Engine Rating Endorsements</u></b>	<b><u>31-35</u></b>
Administration of Engine Ratings Examinations	32
Quick Reference: Engine Ratings Subject Modules	33
<u>Examination Structure Sheets–Engine Ratings Endorsement:</u>	
Junior Engineer	34
Deck Engineer	34
Electrician	34
Refrigerating Engineer	34
Machinist	34
Fireman / Watertender	35
Oiler	35
Pumpman	35
Oiler, Limited, Motor Vessels	35
Renewal - Endorsement Rating	35

## **SECTION 5**

Reference Material	36
--------------------	----

## **General Instructions for the Administration of Engineering Exams**

1. The Engine Guide is divided into five sections, according to the engineering level for which an applicant will be examined. Each section contains an introduction and the examination structure sheets for administering all engineering exams and required subjects. The sections for the unlimited and limited engineering officer endorsement examinations also contain an index to the examinations within the section and a quick reference table.
2. This introduction lists general policy applicable to all engineering examinations in each section.
3. The quick reference sheet shows at a glance the number of modules required for each examination and provides a quick comparison of the total number of modules required to test an applicant at each endorsement level.
4. A module code is a five-digit number that specifically identifies an examination module. The *first* digit specifies the endorsement area of the exam; e.g., 5XXXX, upper level endorsements; 6XXXX, lower level endorsements; and 8XXXX, QMED ratings. The *second* digit specifies the level of the exam, such as 50XXX, upper level, chief engineer, unlimited horsepower. The *third* digit specifies the examination subject area, such as 504XX, upper level, chief engineer, unlimited horsepower, electricity. The fourth (4) digit is used to indicate the year in which the module is generated, i.e., 50451 indicates a module generated in the year 2005. The fifth (5) digit represents the version generated in that year, such as modules 50451 and 50452, whereas 1 and 2 are the respective version numbers. Different versions of the test are used to vary the distribution of questions selected from the subject areas included in a typical module and the use of different versions is encouraged.
5. Each section provides all the examination structure sheets within the specific section of the Engineering Guide and the numbered, applicable examination structure sheets for a particular examination.
6. The order in which the examination structure sheets are presented represent a progression of the unlimited engineer endorsements beginning with the third assistant engineer (53XXX), then second assistant engineer (52XXX), then first assistant engineer (51XXX), and ending with chief engineer (50XXX).
7. The applicable examination structure sheet contains the specific policy that applies to a particular endorsement examination and/or its assessment process.

## **SUMMARY OF EXAMINATION MODULE CODES**

### **SECTION ONE - UNLIMITED ENGINEERING OFFICER ENDORSEMENTS**

<b><u>MODULE CODE</u></b>	<b><u>MODULE NAME</u></b>
50XXX	Unlimited Chief Engineer
51XXX	Unlimited First Assistant Engineer (Second Engineering Officer)
52XXX	Unlimited Second Assistant Engineer
53XXX	Unlimited Third Assistant Engineer (OICEW)
54XXX	Unlimited Chief / First Assistant Engineer, Endorsement
55XXX	Unlimited Engineering Endorsements, Renewal Exercise

### **SECTION TWO - LIMITED ENGINEERING OFFICER ENDORSEMENTS**

<b><u>MODULE CODE</u></b>	<b><u>MODULE NAME</u></b>
60XXX	Chief Engineer, Limited
61XXX	Assistant Engineer, Limited / DDE Unlimited
617XX	Limited Engineering Endorsements, Renewal Exercise
65XXX	Chief Engineer, Un-Inspected Fishing Vessel
66XXX	Assistant Engineer, Un-Inspected Fishing Vessel
69XXX	Designated Duty Engineer, 1000/4000 Horsepower
70XXX	Chief Engineer (OSV)
71XXX	Engineer (OSV)

### **SECTION THREE - MODU ENGINEERING OFFICER ENDORSEMENTS**

<b><u>MODULE CODE</u></b>	<b><u>MODULE NAME</u></b>
62XXX	Chief Engineer, (MODU)
63XXX	Assistant Engineer, (MODU)
64XXX	Limited Engineering (MODU), Renewal Exercise

### **SECTION FOUR - ENGINE RATINGS ENDORSEMENT**

<b><u>MODULE CODE</u></b>	<b><u>MODULE NAME</u></b>
810XX	Junior Engineer
820XX	Deck Engineer
830XX	Electrician
840XX	Refrigeration Engineer
850XX	Machinist
860XX	Fireman / Watertender
870XX	Oiler, Steam and Motor
880XX	Pumpman
890XX	Oiler, Motor Vessels
900XX	QMED Renewal Exercise

## **Chapter 2 - Section 1**

### **Unlimited Engineering Officer** **Endorsements**

**THIRD ASSISTANT ENGINEER (OICEW)**  
**SECOND ASSISTANT ENGINEER**  
**FIRST ASSISTANT ENGINEER (SECOND ENGINEERING OFFICER)**  
**CHIEF ENGINEER**

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## **ADMINISTRATION OF UPPER LEVEL OFFICER ENDORSEMENT - ENGINEERING EXAMS**

### **Scheduling Exam Time Limits and Grading Policy**

A time limit of 3½ hours may be provided to each applicant to complete a test module except as necessary to accommodate the working hours of the examination room. Applicants starting to test in the morning, at the opening of the exam room, should be able to complete a minimum of two modules that day when two or more modules in an examination are to be administered. If they desire, and time permits, they may complete more than two modules. Applicants starting a module late in the afternoon should be advised that it must be completed by the normal closing time; unanswered questions will be graded as wrong answers. An applicant for an upper level endorsement must complete the entire exam on consecutive days. To eliminate confusion the modules should be administered in the published order. A minimum score of 70% is required to pass each module, except for the renewal exercise module, which requires a 90% to pass. All modules for engineers should be graded individually.

### **Examination Cycles**

Subject to the requirements of paragraph 1, the examination cycle may begin on any day, and at anytime during the day as designated by the REC.

### **Reference Material**

Engineering exam illustrations will be provided at the back of each exam module booklet. With the exception of providing the regulations, 46 CFR Parts 1-199 and 33 CFR Parts 1-199, no other reference materials are permitted except for the open book renewal exercise. Only non-programmable calculators are permitted.

### **Increasing the Scope of Propulsion Mode for Chief, First, Second and Third Assistant Engineers**

Applicants wishing to increase the scope of their propulsion mode to STEAM and/or MOTOR are required to be tested with specific modules in the new propulsion area. The complete list of required modules is defined for Third Assistant Engineer in ESS 1-1 thru 1-5, for Second Assistant Engineer in ESS 1-6 thru 1-9, for First Assistant Engineer in ESS 1-10 thru 1-13 and for Chief Engineer in ESS 1-14 thru 1-17.

### **Limited Chief Engineer Cross Over to Unlimited Third or Second Assistant Engineer**

A Chief Engineer - Limited (Near Coastal) desiring to crossover to Third Assistant Engineer - Unlimited (Motor) is to be tested on all Third Assistant (Motor) modules regardless of the issuing date of their Chief Engineer - Limited endorsement. A Chief Engineer - Limited (Oceans) desiring to crossover to Second Assistant Engineer - Unlimited (Motor) is to be tested on all Second Assistant engine modules regardless of the issuing date of their limited Chief Engineer endorsement. These candidates must also satisfy the requirements of STCW, including documentation of the successful completion of all practical demonstrations. (46 CFR 10.514, 10.516)

### **Renewal Exercise**

The endorsement renewal exercises for Chief, First, Second, and Third Assistant Engineers are consolidated into one open book exercise for each propulsion mode being renewed.

### **Questions**

Any questions regarding engineering endorsement or document examinations should be referred to the National Maritime Center, Examination Administration Branch, Engineering Team, at (304) 433-3711.

## **EXAMINATION STRUCTURE SHEETS INDEX**

### **Upper Level Engineering Officer Endorsements<sup>1</sup>**

#### **Operational Level**

<b><u>Exam Title</u></b>	<b><u>Exam Structure Sheet (ESS)</u></b>
<b>Original</b>	
Third Assistant Engineer (OICEW), Motor	ESS: 1-1
Third Assistant Engineer (OICEW), Steam	ESS: 1-2
Third Assistant Engineer (OICEW), Steam and Motor	ESS: 1-3
Third Assistant Engineer (OICEW), Gas Turbine	ESS: 1-4
<b>Increase in Scope</b>	
Third Assistant Engineer (OICEW), Steam, Motor, or Gas Turbine	ESS: 1-5
<b>Raise in Grade</b>	
Second Assistant Engineer, Motor	ESS: 1-6
Second Assistant Engineer, Steam	ESS: 1-7
Second Assistant Engineer, Steam and Motor	ESS: 1-8
<b>Increase in Scope</b>	
Second Assistant Engineer, Steam, Motor, or Gas Turbine	ESS: 1-9
<b><u>Management Level</u></b>	
<b>Raise in Grade</b>	
First Assistant Engineer (Second Engineering Officer), Motor	ESS: 1-10
First Assistant Engineer (Second Engineering Officer), Steam	ESS: 1-11
First Assistant Engineer (Second Engineering Officer), Steam and Motor	ESS: 1-12
<b>Increase in Scope</b>	
First Assistant Engineer (Second Engineering Officer), Steam, Motor, or Gas Turbine	ESS: 1-13
<b>Raise in Grade</b>	
Chief Engineer, Motor	ESS: 1-14
Chief Engineer, Steam	ESS: 1-15
Chief Engineer, Steam and Motor	ESS: 1-16
<b>Increase in Scope</b>	
Chief Engineer, Steam, Motor, or Gas Turbine	ESS: 1-17
<b><u>Operational &amp; Management Level</u></b>	
<b>Renewal</b>	
Unlimited Engineering, Motor	ESS: 1-18
Unlimited Engineering, Steam	ESS: 1-19

<sup>1</sup> Any Gas Turbine Propulsion endorsement to a Steam and/or Motor upper level endorsement may be added only after the applicant has provided evidence of successful completion of an approved Gas Turbine Training course at the level of the requested endorsement and the appropriate sea service has been documented (as per NVIC 02-01).

**QUICK REFERENCE - UPPER LEVEL – ENGINEERING ENDORSEMENT****THIRD ASSISTANT ENGINEER (OICEW)**

<b><u>SUBJECT</u></b>	<b><u>Module Code</u></b>	<b><u>Steam Only</u></b>	<b><u>Motor Only</u></b>	<b><u>Steam &amp; Motor</u></b>
Motor Plants, Part I	531		X	X
Motor Plants, Part II	532		X	X
Engineering Safety & Environmental Protection	534	X	X	X
General Subjects	535	X	X	X
Electricity, Electronics & Control Engineering	536	X	X	X
Steam Plants, Part I	537	X		X
Steam Plants, Part II	538	X		X

**SECOND ASSISTANT ENGINEER<sup>1</sup>**

<b><u>SUBJECT</u></b>	<b><u>Module Code</u></b>	<b><u>Steam Only</u></b>	<b><u>Motor Only</u></b>	<b><u>Steam &amp; Motor</u></b>
Motor Plants, Part I	521		X	X
Motor Plants, Part II	522		X	X
Engineering Safety & Environmental Protection	525	X	X	X
General Subjects	523	X	X	X
Electricity, Electronics & Control Engineering	524	X	X	X
Steam Plants, Part I	526	X		X
Steam Plants, Part II	527	X		X

**FIRST ASSISTANT ENGINEER (SECOND ENGINEERING OFFICER)**

<b><u>SUBJECT</u></b>	<b><u>Module Code</u></b>	<b><u>Steam Only</u></b>	<b><u>Motor Only</u></b>	<b><u>Steam &amp; Motor</u></b>
General Subjects, Part I	511	X	X	X
General Subjects, Part II	512	X	X	X
Steam Plants, Part I	513	X		X
Electricity, Electronics & Control Engineering	514	X	X	X
Engineering Safety & Environmental Protection	515	X	X	X
Motor Plants, Part I	516		X	X
Endorsement, Steam Plants, Part II	545	X		X
Endorsement, Motor Plants, Part II	547		X	X

**“X” indicates a module that is part of the core exam.**

### **CHIEF ENGINEER<sup>1</sup>**

<b><u>SUBJECT</u></b>	<b><u>Module Code</u></b>	<b><u>Steam Only</u></b>	<b><u>Motor Only</u></b>	<b><u>Steam &amp; Motor</u></b>
General Subjects, Part I	501	X	X	X
General Subjects, Part II	502	X	X	X
Steam Plants, Part I	503	X		X
Electricity, Electronics & Control Engineering	504	X	X	X
Engineering Safety and Environmental Protection	505	X	X	X
Motor Plants, Part I	506		X	X
Endorsement, Steam Plants, Part II	545	X		X
Endorsement, Motor Plants, Part II	547		X	X

### **CHIEF ENGINEER, INCREASE IN SCOPE**

<b><u>SUBJECT</u></b>	<b><u>Module Code</u></b>	<b><u>Steam to Motor</u></b>	<b><u>Motor to Steam</u></b>
Steam Plants, Part I	503		X
Endorsement, Steam Plants, Part II	545		X
Motor Plants, Part I	506	X	
Endorsement, Motor Plants, Part II	547	X	

### **RENEWAL EXERCISES<sup>2</sup>**

<b><u>SUBJECT</u></b>	<b><u>Module Code</u></b>	<b><u>Steam Only</u></b>	<b><u>Motor Only</u></b>
Unlimited Engineering Renewal - Motor	551		X
Unlimited Engineering Renewal - Steam	552	X	

<sup>1</sup> Any mariner who completed the Third Assistant Engineer Unlimited or First Assistant Engineer Unlimited endorsement examination modules **AFTER** January 31, 2002, may upgrade to the next endorsement level without further examination, provided they have acquired the required sea service.

<sup>2</sup> All renewals encompassing multiple modes of propulsion must take the renewal modules associated with each mode of propulsion being renewed.

**X** indicates a module that is part of the core exam.

## **Examination Structure Sheets: Unlimited Engineer Officer Endorsements**

EXAMINATION STRUCTURE SHEET NO. 1-1	Endorsement Type- Endorsement Group- Endorsement Action- Endorsement Condition-	<b>Third Assistant Engineer (OICEW)</b> <b>Unlimited</b> <b>Original</b> <b>Motor</b>	EXAM CODE <b>53CO</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
531--, Motor Plants, Part I		70	70
532--, Motor Plants, Part II		70	70
534--, Engineering Safety & Environmental Protection		70	70
535--, General Subjects		70	70
536--, Electricity, Electronics & Control Engineering		70	70

**Applicants requesting an endorsement as Third Assistant Engineer - Unlimited - Motor and having one year of service as Chief Engineer - Limited - Near Coastal - Motor are required to be tested on the above modules as per 46 CFR 11.516(a)(7).**

EXAMINATION STRUCTURE SHEET NO. 1-2	Endorsement Type- Endorsement Group- Endorsement Action- Endorsement Condition-	<b>Third Assistant Engineer (OICEW)</b> <b>Unlimited</b> <b>Original</b> <b>Steam</b>	EXAM CODE <b>53BO</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
534--, Engineering Safety & Environmental Protection		70	70
535--, General Subjects		70	70
536--, Electricity, Electronics & Control Engineering		70	70
537--, Steam Plants, Part I		70	70
538--, Steam Plants, Part II		70	70

**Applicants requesting an endorsement as Third Assistant Engineer - Unlimited -Steam and having one year of service as Chief Engineer - Limited - Near Coastal - Steam are required to be tested on the above modules as per 46 CFR 11.516(a)(7).**

EXAMINATION STRUCTURE SHEET NO. 1-3	Endorsement Type- Endorsement Group- Endorsement Action- Endorsement Condition-	<b>Third Assistant Engineer (OICEW)</b> <b>Unlimited</b> <b>Original</b> <b>Steam and Motor</b>	EXAM CODE <b>53AO</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
531--, Motor Plants, Part I		70	70
532--, Motor Plants, Part II		70	70
534--, Engineering Safety & Environmental Protection		70	70
535--, General Subjects		70	70
536--, Electricity, Electronics & Control Engineering		70	70
537--, Steam Plants, Part I		70	70
538--, Steam Plants, Part II		70	70

EXAMINATION STRUCTURE SHEET NO. 1-4	Endorsement Type- Endorsement Group- Endorsement Action- Endorsement Condition-	<b>Third Assistant Engineer (OICEW) Unlimited Original Gas Turbine</b>	EXAM CODE <b>53AO</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
534--, Engineering Safety & Environmental Protection		70	70
535--, General Subjects		70	70
536--, Electricity, Electronics & Control Engineering		70	70
586--, Gas Turbine Plants		70	70

**A candidate for an Original Third Assistant Engineer Gas Turbine Only endorsement may be examined using the modules above, having provided documentation of receiving gas turbine training and appropriate military sea going service on gas turbine propelled vessels.**

EXAMINATION STRUCTURE SHEET NO. 1-5	Endorsement Type- Endorsement Group- Endorsement Action - Endorsement Condition-	<b>Third Assistant Engineer (OICEW) <sup>1</sup> Unlimited Increase in Scope Steam, Motor, or Gas Turbine</b>	EXAM CODE <b>53AI, 53BI</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
<b>From Motor to Steam</b> Exam Code 53AI			
537-- Steam Plants		70	70
538-- Steam Plants Part II		70	70

<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
<b>From Steam to Motor</b> Exam Code 53BI			
531-- Motor Plants		70	70
532-- Motor Plants Part II		70	70
<b>From Steam and/or Motor to Gas Turbine <sup>2</sup></b>			
Gas Turbine Course		OPERATIONAL COURSE	

<sup>1</sup> Each applicant, requesting to increase the scope of their existing endorsement, is required to be examined with the above modules specific to the propulsion mode they are applying for.

<sup>2</sup> A Gas Turbine endorsement may be added to an existing Steam or Motor endorsement after the applicant has provided the evidence of the successful completion of an approved Gas Turbine training course at the Operational or Management level.

EXAMINATION STRUCTURE SHEET NO. 1-6	Endorsement Type- Endorsement Group- Endorsement Action- Endorsement Condition-	<b>Second Assistant Engineer<sup>1,2</sup></b> <b>Unlimited</b> <b>Raise in Grade</b> <b>Motor</b>	EXAM CODE <b>52CR</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
521-- Motor Plants, Plants I		70	70
522-- Motor Plants, Part II		70	70
523-- General Subjects		70	70
524-- Electricity, Electronics & Control Engineering		70	70
525-- Engineering Safety & Environmental Protection		70	70

EXAMINATION STRUCTURE SHEET NO. 1-7	Endorsement Type- Endorsement Group- Endorsement Action- Endorsement Condition-	<b>Second Assistant Engineer<sup>1,2</sup></b> <b>Unlimited</b> <b>Raise in Grade</b> <b>Steam</b>	EXAM CODE <b>52BR</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
523--, General Subjects		70	70
524--, Electricity, Electronics & Control Engineering		70	70
525--, Engineering Safety & Environmental Protection		70	70
526--, Steam Plants, Part I		70	70
527--, Steam Plants, Part II		70	70

EXAMINATION STRUCTURE SHEET NO. 1-8	Endorsement Type- Endorsement Group- Endorsement Action- Endorsement Condition-	<b>Second Assistant Engineer<sup>1,2</sup></b> <b>Unlimited</b> <b>Raise in Grade</b> <b>Steam and Motor</b>	EXAM CODE <b>52AR</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
521--, Motor Plants, Part I		70	70
522--, Motor Plants, Part II		70	70
523--, General Subjects		70	70
524--, Electricity, Electronics & Control Engineering		70	70
525--, Engineering Safety & Environmental Protection		70	70
526--, Steam Plants, Part I		70	70
527--, Steam Plants, Part II		70	70

<sup>1</sup> Applicants for Second Assistant Engineer, who were examined for their Third Assistant Engineer endorsement prior to February 01, 2002 and have obtained the required sea service, must be tested on the modules above for a Raise in Grade in both propulsion modes.

<sup>2</sup> Applicants for Second Assistant Engineer, who completed training and assessment in accordance with the STCW Code Section A-III/1 and Table A-III/1 and were issued a Third Assistant Engineer endorsement after February 01, 2002, may be issued a Second Assistant Engineer endorsement without further examination, after presenting evidence of the required sea service.

EXAMINATION STRUCTURE SHEET NO. 1-9	Endorsement Type- Endorsement Group- Endorsement Action- Endorsement Condition-	<b>Second Assistant Engineer <sup>1,2</sup></b> <b>Unlimited</b> <b>Increase in Scope</b> <b>Steam, Motor, or Gas Turbine</b>	EXAM CODE <b>52AI, 52BI</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
<b>From Motor to Steam</b> Exam Code 52AI			
526--, Steam Plants Part I		70	70
527--, Steam Plants Part II		70	70
<b>From Steam to Motor</b> Exam Code 52BI			
521--, Motor Plants Part I		70	70
522--, Motor Plants Part II		70	70
<b>From Steam and/or Motor to Gas Turbine</b>			
Gas Turbine Course		OPERATIONAL LEVEL	

<sup>1</sup> Each applicant, requesting to increase the scope of their existing endorsement is required to be examined with the above modules specific to the propulsion mode they are applying for.

<sup>2</sup> A Gas Turbine endorsement may be added to an existing Steam or Motor endorsement after the applicant has provided the evidence of the successful completion of an approved Gas Turbine training course at the Operational or Management level.

EXAMINATION STRUCTURE SHEET NO. 1-10	Endorsement Type - Endorsement Group- Endorsement Action- Endorsement Condition-Motor	<b>First Assistant (Second Engineering Officer) <sup>1</sup></b> <b>Unlimited</b> <b>Raise in Grade</b>	EXAM CODE <b>51CO</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
511--, General Subjects, Part I		70	70
512--, General Subjects, Part II		70	70
514--, Electricity, Electronics & Control Engineering		70	70
515--, Engineering Safety & Environmental Protection		70	70
516--, Motor Plants		70	70

<sup>1</sup> All applicants for First Assistant Engineer who have obtained the required sea service, must be tested on the modules above for a Raise in Grade in both propulsion modes.



EXAMINATION STRUCTURE SHEET NO. 1-11	Endorsement Type - Endorsement Group- Endorsement Action- Endorsement Condition-	<b>First Assistant (Second Engineering Officer) <sup>1</sup></b> <b>Unlimited</b> <b>Raise in Grade</b> <b>Steam</b>	EXAM CODE <b>51BO</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
511--, General Subjects, Part I		70	70
512--, General Subjects, Part II		70	70
513--, Steam Plants		70	70
514--, Electricity, Electronics & Control Engineering		70	70
515--, Engineering Safety & Environmental Protection		70	70

<sup>1</sup> **All applicants for First Assistant Engineer, who have obtained the required sea service, must be tested on the modules above for a Raise in Grade in both propulsion modes.**

EXAMINATION STRUCTURE SHEET NO. 1-12	Endorsement Type - Endorsement Group- Endorsement Action- Endorsement Condition-	<b>First Assistant (Second Engineering Officer) <sup>1</sup></b> <b>Unlimited</b> <b>Raise in Grade</b> <b>Steam and Motor</b>	EXAM CODE <b>51AO</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
511--, General Subjects, Part I		70	70
512--, General Subjects, Part II		70	70
513--, Steam Plants		70	70
514--, Electricity, Electronics & Control Engineering		70	70
515--, Engineering Safety & Environmental Protection		70	70
516--, Motor Plants		70	70

<sup>1</sup> **All applicants for First Assistant Engineer, who have obtained the required sea service, must be tested on the modules above for a Raise in Grade in both propulsion modes.**

EXAMINATION STRUCTURE SHEET NO. 1-13	Endorsement Type- <b>First Assistant (Second Engineering Officer)</b> <sup>1,2</sup> Endorsement Group- <b>Unlimited</b> Endorsement Action- <b>Increasing Scope</b> Endorsement Condition- <b>Steam, Motor, or Gas Turbine</b>	EXAM CODE <b>51AI, 51AJ</b>	
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
<b>From Motor to Steam</b> Exam Code 51AI			
513--, Steam Plants		70	70
545--, Endorsement Steam Plants Part II		70	70
<b>From Steam to Motor</b> Exam Code 51AJ			
516--, Motor Plants		70	70
547--, Endorsement Motor Plants Part II		70	70
<b>From Steam and/or Motor to Gas Turbine</b>			
Gas Turbine Course (Management Level)			

<sup>1</sup> Each applicant, requesting to increase the scope of their existing endorsement, is required to be examined with the above modules specific to the propulsion mode they are applying for.

<sup>2</sup> A Gas Turbine endorsement may be added to an existing Steam or Motor endorsement after the applicant has provided the evidence of the successful completion of an approved Gas Turbine training course at the Management level.

EXAMINATION STRUCTURE SHEET NO. 1-14	Endorsement Type- Endorsement Group- Endorsement Action- Endorsement Condition-	Chief Engineer <sup>1,2</sup> Unlimited Raise in Grade Motor	EXAM CODE 50CR
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
501--, General Subjects, Part I		70	70
502--, General Subjects, Part II		70	70
504--, Electricity, Electronics & Control Engineering		70	70
505--, Engineering Safety & Environmental Protection		70	70
506--, Motor Plants		70	70

<sup>1</sup> Applicants for Chief Engineer, who were examined for their First Assistant Engineer endorsement prior to February 01, 2002 and have obtained the required sea service, must be tested on the modules above for a Raise in Grade in both propulsion modes.

<sup>2</sup> Applicants for Chief Engineer - Unlimited, who completed training and assessment in accordance with the STCW Code Section A-III/2 and Table A-III/2 and were issued a First Assistant Engineer endorsement after February 01, 2002, may be issued a Chief Engineer - Unlimited endorsement without further examination, after presenting evidence of the required sea service.

EXAMINATION STRUCTURE SHEET NO. <b>1-15</b>	Endorsement Type- Endorsement Group- Endorsement Action- Endorsement Condition-	<b>Chief Engineer</b> <sup>1,2</sup> <b>Unlimited</b> <b>Raise in Grade</b> <b>Steam</b>	EXAM CODE <b>50BR</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
501--, General Subjects, Part I		70	70
502--, General Subjects, Part II		70	70
503--, Steam Plants		70	70
504--, Electricity, Electronics & Control Engineering		70	70
505--, Engineering Safety & Environmental Protection		70	70

EXAMINATION STRUCTURE SHEET NO. <b>1-16</b>	Endorsement Type- Endorsement Group- Endorsement Action- Endorsement Condition-	<b>Chief Engineer</b> <sup>1,2</sup> <b>Unlimited</b> <b>Raise in Grade</b> <b>Steam &amp; Motor</b>	EXAM CODE <b>50AR</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
501--, General Subjects, Part I		70	70
502--, General Subjects, Part II		70	70
503--, Steam Plants		70	70
504--, Electricity, Electronics & Control Engineering		70	70
505--, Engineering Safety & Environmental Protection		70	70
506--, Motor Plants		70	70

<sup>1</sup> Applicants for Chief Engineer, who were examined for their First Assistant Engineer endorsement prior to February 01, 2002 and have obtained the required sea service, must be tested on the modules above for a Raise in Grade in both propulsion modes.

<sup>2</sup> Applicants for Chief Engineer - Unlimited, who completed training and assessment in accordance with the STCW Code Section A-III/2 and Table A-III/2 and were issued a First Assistant Engineer endorsement after February 01, 2002, may be issued a Chief Engineer - Unlimited endorsement without further examination, after presenting evidence of the required sea service.

EXAMINATION STRUCTURE SHEET NO. 1-17	Endorsement Type- Endorsement Group- Endorsement Action- Endorsement Condition-	<b>Chief Engineer<sup>1</sup> Unlimited Increase in Scope Steam, Motor or Gas Turbine</b>	EXAM CODE <b>50IA, 50IB</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
<b>From Motor to Steam</b> Exam Code 50IA			
503--,Steam Plants		70	70
545--,Endorsement Steam Plants		70	70

<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
<b>From Steam to Motor</b> Exam Code 50IB			
506--,Motor Plants		70	70
547--Endorsement Motor Plants		70	70
<b>From Steam and/or Motor to Gas Turbine</b>			
Gas Turbine Course (Management Level)			

<sup>1</sup> A Gas Turbine endorsement may be added to an existing Steam or Motor endorsement after the applicant has provided the evidence of the successful completion of an approved Gas Turbine training course at the Management level

EXAMINATION STRUCTURE SHEET NO. 1-18	Endorsement Type - Endorsement Group- Endorsement Action - Endorsement Condition-	<b>Engineering (RENEWAL) Unlimited Renewal Motor</b>	EXAM CODE <b>55AB</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
551--, Unlimited Engineering Renewal Exercise, Motor		70	90

EXAMINATION STRUCTURE SHEET NO. 1-19	Endorsement Type - Endorsement Group- Endorsement Action - Endorsement Condition -	<b>Engineering (RENEWAL) Unlimited Renewal Steam</b>	EXAM CODE <b>55AC</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
552--, Unlimited Engineering Renewal Exercise, Steam		70	90

**Renewal exercises are open book.**

## **Chapter 2 - Section 2**

# **Limited Engineering Officer** **Endorsements**

**ENGINEER (OSV)**  
**CHIEF ENGINEER (OSV)**  
**CHIEF ENGINEER, UFIV**  
**ASSISTANT ENGINEER, UFIV**  
**CHIEF ENGINEER (LIMITED)**  
**DESIGNATED DUTY ENGINEER**  
**ASSISTANT ENGINEER (LIMITED)**

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## **ADMINISTRATION OF LIMITED ENGINEERING OFFICER EXAMS**

### **OVERVIEW**

The written examination is the final step or capstone in the process for attaining an engineering officer endorsement. All other U. S. Regulatory or STCW requirements must be completed prior to the candidate being examined. Only the motor propulsion mode for limited officer endorsement examinations will be made available to the REC's. The **steam propulsion** mode for limited power/tonnage engineering Endorsements is not considered viable due to the small number of these vessels. **An engineer desiring to have their officer's endorsement endorsed for steam plants of limited power/limited tonnage must first hold a comparable motor officer endorsement and complete a training program established for the operation of a limited horsepower steam plant to obtain this endorsement (see also 46 CFR 11.502(b)).**

### **TIME OF EXAMINATION AND GRADING POLICY**

A time limit of 3½ hours may be provided to each applicant to complete a test module except as necessary to accommodate the working hours of the examination room. Applicants starting to test in the morning, at the opening of the exam room, must complete a minimum of two modules that day when two or more modules in an exam series are to be administered. If time permits, they may complete more than two modules. Applicants starting a module late in the afternoon should be advised that it must be completed by the normal closing time; unanswered questions will be treated as wrong answers. An applicant for a limited officer endorsement must complete the entire exam on consecutive days. All modules are graded separately. A minimum score of 70% is required to pass each module, except for the renewal exercise open book modules, which require 90% to pass.

### **REFERENCE MATERIAL**

Engineering exam illustrations will be provided at the back of each exam module booklet. With the exception of providing the regulations, 46 CFR Parts 1-199 and 33 CFR Parts 1-199, no other reference materials are permitted except for the open book renewal exercise. Only non-programmable calculators are permitted.

### **EXAMINATION CYCLES**

Subject to the requirements of paragraph 1 and 2, the examination cycle may begin on any workday, and at anytime during the day as designated by the REC.

### **RENEWAL EXERCISE**

The renewal exercises for all limited engineering officer endorsements have been consolidated into one open book exercise.

### **QUESTIONS**

Any questions regarding engineering endorsement or document examinations should be referred to the National Maritime Center, Examination Administration Branch, Engineering Team, at (304) 433-3711.

## **EXAMINATION STRUCTURE SHEET INDEX FOR LIMITED ENGINEERS OFFICER ENDORSEMENT**

<b><u>Exam Title</u></b>	<b><u>Exam Structure Sheets (ESS)</u></b>
Assistant Engineer Limited / DDE Unlimited Horsepower .....	ESS 2-1
Chief Engineer Limited, Near Coastal .....	ESS 2-2
Chief Engineer Limited, Oceans .....	ESS 2-3
Engineer, (OSV).....	ESS 2-4
Chief Engineer, (OSV).....	ESS 2-5
Designated Duty Engineer 1000/4000 Horsepower.....	ESS 2-6
Assistant Engineer, Uninspected Fishing Industry Vessels .....	ESS 2-7
Chief Engineer, Uninspected Fishing Industry Vessels .....	ESS 2-8
Limited Engineer Officer Endorsement Renewal .....	ESS 2-9

## **QUICK REFERENCE - LIMITED ENGINEERING OFFICER ENDORSEMENTS**

### **ASSISTANT ENGINEER - LIMITED & DESIGNATED DUTY ENGINEER - UNLIMITED HP:**

<b><u>Subject</u></b>	<b><u>Module Code</u></b>	<b><u>A/E ULTD</u></b>	<b><u>DDE ULTD</u></b>
General Subject .....	611	X	X
Motor Plants .....	612	X	X
Engineering Safety & Environmental Protection.....	613	X	X
Electricity .....	614	X	X

### **CHIEF ENGINEER – LIMITED NEAR COASTAL:**

<b><u>Subject</u></b>	<b><u>Module Code</u></b>
General Subjects.....	601
Motor Plants .....	602
Engineering Safety & Environmental Protection.....	603
Electricity - Near Coastal .....	604

### **CHIEF ENGINEER – LIMITED OCEANS:**

<b><u>Subject</u></b>	<b><u>Module Code</u></b>
General Subjects.....	607
Motor Plants .....	608
Engineering Safety & Environmental Protection.....	609
Electricity, Electronics & Control Engineering -Oceans .....	605

### **ENGINEER - OFFSHORE SUPPLY VESSELS:**

<b><u>Subject</u></b>	<b><u>Module Code</u></b>
General Subjects.....	711
Motor Plants .....	712
Engineering Safety & Environmental Protection.....	713
Electricity .....	714
Survival Craft .....	706

### **CHIEF ENGINEER - OFFSHORE SUPPLY VESSELS:**

<b><u>Subject</u></b>	<b><u>Module Code</u></b>
General Subjects.....	701
Motor Plants .....	702
Engineering Safety & Environmental Protection.....	703
Electricity .....	704
Survival Craft .....	706



**DESIGNATED DUTY ENGINEER – 1000/4000 HP:**

<b><u>Subject</u></b>	<b><u>Module Code</u></b>
General Subjects.....	691
Motor Plants .....	692
Engineering Safety & Environmental Protection.....	693

**ASSISTANT ENGINEER - UNINSPECTED FISHING INDUSTRY VESSEL :**

<b><u>Subject</u></b>	<b><u>Module Code</u></b>
General Subjects.....	661
Motor Plants .....	662
Engineering Safety & Environmental Protection.....	663

**CHIEF ENGINEER - UNINSPECTED FISHING INDUSTRY VESSEL :**

<b><u>Subject</u></b>	<b><u>Module Code</u></b>
General Subjects.....	651
Motor Plants .....	652
Engineering Safety & Environmental Protection.....	653

## **Examination Structure Sheets: Limited Engineer Officer Endorsements**

EXAMINATION STRUCTURE SHEET NO. 2-1	Endorsement Type - <b>Assistant Engineer/ DDE, Unlimited HP</b> <sup>1,2</sup> Endorsement Group- <b>Limited</b> Endorsement Action- <b>Original</b>	EXAM CODE <b>61CR</b>
MODULES	NUMBER OF QUESTIONS	MINIMUM SCORE
611--, General Subjects	70	70
612--, Motor Plants	70	70
613--, Engineering Safety & Environmental Protection	70	70
614--, Electricity	70	70

<sup>1</sup> After January 31, 2002, each applicant for an Assistant Engineer - Limited / DDE - Unlimited HP endorsement and certificate for STCW 95 must complete all modules listed above to be issued an endorsement.

<sup>2</sup> Any mariner that requests an Assistant Engineer endorsement, and already holds a DDE Unlimited endorsement, must complete all of the modules listed above.

EXAMINATION STRUCTURE SHEET NO. 2-2	Endorsement Type- <b>Chief Engineer</b> <sup>1,2</sup> Endorsement Group- <b>Limited - Near Coastal</b> Endorsement Action- <b>Raise in Grade</b>	EXAM CODE <b>60CR</b>
MODULES	NUMBER OF QUESTIONS	MINIMUM SCORE
601--, General Subjects	70	70
602--, Motor Plants	70	70
603--, Engineering Safety & Environmental Protection	70	70
604--, Electricity	70	70

<sup>1</sup> Applicants for Chief Engineer - Limited - Near Coastal, who were examined for their Assistant Engineer - Limited endorsement must complete all modules listed above for a Raise In Grade.

<sup>2</sup> Applicants for Chief Engineer - Limited - Near Coastal, who completed training in accordance with the STCW Code Section A-III/1 and Table A-III/1, and were issued a Third Engineer - Unlimited endorsement after February 01, 2002, and are to be issued a Second Assistant Engineer - Unlimited endorsement without further examination, must complete all modules listed above to receive the Chief Engineer - Limited - Near Coastal endorsement.

EXAMINATION STRUCTURE SHEET NO. 2-3	Endorsement Type- <b>Chief Engineer</b> <sup>1</sup> Endorsement Group- <b>Limited - Oceans</b> Endorsement Action- <b>Raise in Grade</b>	EXAM CODE <b>60AR</b>
MODULES	NUMBER OF QUESTIONS	MINIMUM SCORE
607--, General Subjects	70	70
608--, Motor Plants	70	70
609--, Engineering Safety & Environmental Protection	70	70
605--, Electricity and Electronics	70	70

<sup>1</sup> Applicants for Chief Engineer - Limited - Oceans, who completed training in accordance with the STCW Code Section A-III/1 and Table A-III/1, and are to be issued a Second Assistant Engineer - Unlimited endorsement without examination, must complete all modules listed above to receive the Chief Engineer - Limited - Oceans endorsement.

EXAMINATION STRUCTURE SHEET No. 2-4	Endorsement Type- Endorsement Group- Endorsement Action- Endorsement Condition-	<b>Engineer <sup>1</sup></b> <b>Limited</b> <b>Original</b> <b>OSV</b>	EXAM CODE <b>71CC</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
711--, General Subjects		70	70
712--, Motor Plants		70	70
713--, Engineering Safety & Environmental Protection		70	70
714--, Electricity		70	70
706--, Survival Craft		50	70

<sup>1</sup> Each candidate for an Engineer - Limited - OSV endorsement, must complete module 706XX if they have not previously completed the assessment of practical skills or completed an approved course of training on personal survival craft that satisfies module 441XX or 706XX.

EXAMINATION STRUCTURE SHEET No. 2-5	Endorsement Type - Endorsement Group - Endorsement Action - Endorsement Condition -	<b>Chief Engineer <sup>1</sup></b> <b>Limited</b> <b>Raise in Grade</b> <b>OSV</b>	EXAM CODE <b>70CF</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
701--, General Subjects		70	70
702--, Motor Plants		70	70
703--, Engineering Safety & Environmental Protection		70	70
704--, Electricity		70	70
706--, Survival Craft		50	70

<sup>1</sup> Each candidate for an Engineer - Limited - OSV endorsement, must complete module 706XX if they have not previously completed the assessment of practical skills or completed an approved course of training on personal survival craft that satisfies module 441XX or 706XX .

EXAMINATION STRUCTURE SHEET NO. 2-6	Endorsement Type - Endorsement Group- Endorsement Action-	<b>DDE, 1000/4000 HP</b> <b>Limited</b> <b>Original</b>	EXAM CODE <b>69CR</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
691--, General Subjects		50	70
692--, Motor Plants		50	70
693--, Engineering Safety & Environmental Protection		50	70

EXAMINATION STRUCTURE SHEET No. 2-7	Endorsement Type - Endorsement Group - Endorsement Action - Endorsement Condition -	<b>Assistant Engineer Limited Original UFIV</b>	EXAM CODE <b>66CF</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
661--, General Subjects		50	70
662--, Motor Plants		50	70
663--, Engineering Safety & Environmental Protection		50	70

EXAMINATION STRUCTURE SHEET NO. 2-8	Endorsement Type- Endorsement Group- Endorsement Action- Endorsement Condition-	<b>Chief Engineer Limited Original &amp; Raise in Grade UFIV</b>	EXAM CODE <b>65CF</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
651--, General Subjects		70	70
652--, Motor Plants		70	70
653--, Engineering Safety & Environmental Protection		70	70

EXAMINATION STRUCTURE SHEET NO. 2-9	Endorsement Type- Endorsement Group- Endorsement Action-	<b>Engineering (RENEWAL) Limited Renewal</b>	EXAM CODE <b>61AI</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
617--, Limited Renewal Exercise.		70	90

**Renewal exercises are open book.**

## **Chapter 2 - Section 3**

# **Mobile Offshore Drilling Unit (MODU)** **Engineering Officer Endorsements**

**CHIEF ENGINEER (MODU)**  
**ASSISTANT ENGINEER (MODU)**

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## **ADMINISTRATION OF MOBILE OFFSHORE DRILLING UNIT (MODU) EXAMINATIONS**

### **TIME OF EXAMINATION AND GRADING POLICY**

A time limit of 3½ hours may be provided to each applicant to complete a test module except as necessary to accommodate the working hours of the examination room. Applicants starting to test in the morning, at the opening of the exam room, must complete a minimum of two modules that day and may complete more if they desire and time permits. Applicants starting a module late in the afternoon should be advised that it must be completed by the normal closing time; unanswered questions will be treated as wrong answers. An applicant for a Mobile Offshore Drilling Unit (MODU) engineer's officer endorsement must complete the entire exam on consecutive days. A minimum score of 70% is required to pass all modules. All examination modules are graded separately. The renewal exercise module requires a minimum score of 90% to pass.

### **EXAMINATION CYCLES**

Subject to the requirements of paragraph 1, the examination cycle may begin on any business day and at anytime during the day as designated by the REC.

### **RENEWAL EXERCISE**

The renewal exercises for chief and assistant Engineers (MODU) have been consolidated into one open book exercise.

### **REFERENCE MATERIAL**

Engineering exam illustrations will be provided at the back of each exam module booklet. With the exception of providing the regulations, 46 CFR Parts 1-199 and 33 CFR Parts 1-199, no other reference materials are permitted except for the open book renewal exercise. Only non-programmable calculators are permitted.

### **QUESTIONS**

Any questions should be referred to the National Maritime Center, Examination Administration Branch, Engineering Team, at (304) 433-3711.

## **QUICK REFERENCE - MODU ENGINEERING OFFICER ENDORSEMENTS**

### **ASSISTANT ENGINEER - MODU:**

<b><u>Subject</u></b>	<b><u>Module Code</u></b>
General Subject.....	631
Auxiliary Machine.....	632
Engineering Safety & Environmental Protection .....	633

### **CHIEF ENGINEER - MODU:**

<b><u>Subject</u></b>	<b><u>Module Code</u></b>
General Subjects .....	621
Auxiliary Machinery.....	622
Engineering Safety & Environmental Protection .....	623

### **ENGINEERING RENEWAL - MODU:**

<b><u>Subject</u></b>	<b><u>Module Code</u></b>
MODU Renewal Exercise .....	634

## **Examination Structure Sheets: MODU Engineer Officer Endorsements**

EXAMINATION STRUCTURE SHEET NO. 3-1	Endorsement Type - <b>Assistant Engineer – MODU</b> Endorsement Group - <b>Original</b>	EXAM CODE <b>63FO</b>
MODULES	NUMBER OF QUESTIONS	MINIMUM SCORE
631--, General Subjects	50	70
632--, Auxiliary Machinery	50	70
633--, Engineering Safety & Environmental Protection	50	70

EXAMINATION STRUCTURE SHEET NO. 3-2	Endorsement Type - <b>Chief Engineer - MODU</b> Endorsement Group - <b>Raise in Grade</b>	EXAM CODE <b>62ER</b>
MODULES	NUMBER OF QUESTIONS	MINIMUM SCORE
621--, General Subjects	70	70
622--, Auxiliary Machinery	70	70
623--, Engineering Safety & Environmental Protection	70	70

EXAMINATION STRUCTURE SHEET No. 3-3	Endorsement Type - <b>Engineering (Renewal)</b> <sup>1, 2</sup> Endorsement Group - <b>MODU–Chief and Assistant</b>	EXAM CODE <b>63EN</b>
MODULES	NUMBER OF QUESTIONS	MINIMUM SCORE
634--, MODU Renewal Exercise	50	90

<sup>1</sup> A certificate of completion for a Coast Guard Approved course may be accepted in lieu of the renewal exercise.

<sup>2</sup> When used in lieu of an examination, the course certificate may only be recognized for obtaining this endorsement and may not be used for any other officer endorsement, rating endorsement, or recency of service.



## **Chapter 2 - Section 4**

### **Engine Rating Endorsements**

**PUMPMAN  
MACHINIST  
ELECTRICIAN  
DECK ENGINEER  
JUNIOR ENGINEER  
OILER: STEAM & MOTOR  
OILER: MOTOR (LIMITED)  
FIREMAN/WATERTENDER  
REFRIGERATING ENGINEER  
QMED RENEWAL EXERCISE**

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## **ADMINISTRATION OF ENGINE RATINGS ENDORSEMENT EXAMINATIONS**

### **TIME OF EXAMINATION AND GRADING POLICY**

A time limit of 3½ hours may be provided to each applicant to complete an exam module except as necessary to accommodate the working hours of the examination room. An applicant starting to test in the morning, at the opening of the exam room, may complete a minimum of two modules that day when two different exam modules are requested. They may complete more than two if they desire and time permits. Applicants starting a module late in the afternoon should be advised that it must be completed by the normal closing time; unanswered questions will be treated as wrong answers. A minimum score of 70% is required to pass each module except for the renewal exercise which requires a 90% to pass. All modules are to be graded separately.

### **EXAMINATION CYCLES**

Subject to the requirements of paragraph 1, the examination cycle may begin on any business day, and at anytime during the day as designated by the REC.

### **REFERENCE MATERIAL**

Engineering exam illustrations will be provided at the back of each exam module booklet. With the exception of providing the regulations, 46 CFR Parts 1-199 and 33 CFR Parts 1-199, no other reference materials are permitted except for the open book renewal exercise. Only non-programmable calculators are permitted.

### **QUESTIONS**

Any questions should be referred to the National Maritime Center, Examination Administration Branch, Engineering Team, at (304) 433-3711.

## **QUICK REFERENCE : ENGINE RATINGS SUBJECT MODULES**

### **JUNIOR ENGINEER**

<b><u>Subject</u></b>	<b><u>Module Code</u></b>
Junior Engineer	810

### **DECK ENGINEER**

<b><u>Subject</u></b>	<b><u>Module Code</u></b>
Deck Engineer	820

### **ELECTRICIAN**

<b><u>Subject</u></b>	<b><u>Module Code</u></b>
Electrician	830

### **REFRIGERATING ENGINEER**

<b><u>Subject</u></b>	<b><u>Module Code</u></b>
Refrigerating Engineer	840

### **MACHINIST**

<b><u>Subject</u></b>	<b><u>Module Code</u></b>
Machinist	850

### **FIREMAN / WATERTENDER**

<b><u>Subject</u></b>	<b><u>Module Code</u></b>
Fireman / Watertender	860

### **OILER: STEAM & MOTOR**

<b><u>Subject</u></b>	<b><u>Module Code</u></b>
Oiler: Steam & Motor	870

### **PUMPMAN**

<b><u>Subject</u></b>	<b><u>Module Code</u></b>
Pumpman	880

### **OILER: MOTOR (LIMITED) <sup>1</sup>**

<b><u>Subject</u></b>	<b><u>Module Code</u></b>
Oiler: Motor (Limited)	890

### **QMED RENEWAL EXERCISE <sup>2</sup>**

<b><u>Subject</u></b>	<b><u>Module Code</u></b>
QMED Renewal Exercise	900

<sup>1</sup> Each applicant for a QMED - Oiler endorsement where service has been obtained on motor propelled vessels of less than 1600 GT, (without auxiliary and/or waste heat boilers), should be administered the 890XX, QMED-Oiler Motor (Limited) exam. The endorsement should reflect this limitation.

<sup>2</sup> The Renewal Module, 900XX, is open book and is to be administered for those applicants holding QMED endorsements who have not maintained a recency of sea service.

**Examination Structure Sheets: Engine Rating Endorsements**

EXAMINATION STRUCTURE SHEET NO. 4-1	Endorsement Type - <b>Junior Engineer</b> Endorsement Group - <b>Ratings Endorsement</b>	EXAM CODE <b>81UU</b>
<b>MODULES</b>	<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
810--, Junior Engineer	70	70

EXAMINATION STRUCTURE SHEET NO. 4-2	Endorsement Type - <b>Deck Engineer</b> Endorsement Group - <b>Ratings Endorsement</b>	EXAM CODE <b>82UU</b>
<b>MODULES</b>	<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
820--, Deck Engineer	70	70

EXAMINATION STRUCTURE SHEET NO. 4-3	Endorsement Type - <b>Electrician</b> Endorsement Group - <b>Ratings Endorsement</b>	EXAM CODE <b>83UU</b>
<b>MODULES</b>	<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
830--, Electrician	70	70

EXAMINATION STRUCTURE SHEET NO. 4-4	Endorsement Type - <b>Refrigerating Engineer</b> Endorsement Group - <b>Ratings Endorsement</b>	EXAM CODE <b>84UU</b>
<b>MODULES</b>	<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
840--, Refrigerating Engineer	70	70

EXAMINATION STRUCTURE SHEET NO. 4-5	Endorsement Type - <b>Machinist</b> Endorsement Group - <b>Ratings Endorsement</b>	EXAM CODE <b>85UU</b>
<b>MODULES</b>	<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
850--, Machinist	70	70

EXAMINATION STRUCTURE SHEET NO. 4-6	Endorsement Type - <b>Fireman/Watertender</b> Endorsement Group- <b>Ratings Endorsement</b>	EXAM CODE <b>86UU</b>
<b>MODULES</b>	<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
860--, Fireman Watertender	70	70

EXAMINATION STRUCTURE SHEET NO. 4-7	Endorsement Type - <b>Oiler</b> Endorsement Group - <b>Ratings Endorsement</b>	EXAM CODE <b>87UU</b>
<b>MODULES</b>	<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
870--, Oiler (Steam and Motor)	70	70

EXAMINATION STRUCTURE SHEET NO. 4-8	Endorsement Type - <b>Pumpman</b> Endorsement Group - <b>Ratings Endorsement</b>	EXAM CODE <b>88UU</b>
<b>MODULES</b>	<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
880--, Pumpman	70	70

EXAMINATION STRUCTURE SHEET NO. 4-9	Endorsement Type – <b>Oiler-Motor (Limited)</b> Endorsement Group- <b>Ratings Endorsement</b>	EXAM CODE <b>89UU</b>
<b>MODULES</b>	<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
890--, Oiler - Motor (Limited)	70	70

EXAMINATION STRUCTURE SHEET NO. 4-10	Endorsement Type - <b>Renewal</b> Endorsement Group - <b>Ratings Endorsement</b>	EXAM CODE <b>90UU</b>
<b>MODULES</b>	<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
900--, Renewal Exercise	70	90

## **Chapter 2-Section 5**

### **Reference Material**

# 46 CFR Parts 10,11, & 12 Quick Index

## 46 CFR PART 10—MERCHANT MARINER CREDENTIAL

### Section Contents

#### Subpart A—General

- § 10.107 Definitions in subchapter B.
- § 10.109 Classification of endorsements.

#### Subpart B—General Requirements for All Merchant Mariner Credentials

- § 10.223 Modification or removal of limitations or scope.
- § 10.225 Requirements for original merchant mariner credentials.
- § 10.227 Requirements for renewal.
- § 10.231 Requirements for raises of grade or new endorsements.
- § 10.239 Quick reference table for MMC requirements.

## 46 CFR 11—REQUIREMENTS FOR OFFICER ENDORSEMENTS

### Section Contents

#### Subpart B—General Requirements for Officer Endorsements

- § 11.201 Eligibility for officer endorsements and STCW endorsements, general.
- § 11.202 STCW endorsements.
- § 11.205 Requirements for original officer endorsements and STCW endorsements.
- § 11.211 Creditable service and equivalents for officer endorsements.
- § 11.213 Sea service as a member of the Armed Forces of the United States and on vessels owned by the United States as qualifying experience.
- § 11.217 Examination procedures and denial of officer endorsements.

#### Subpart D—Professional Requirements for Deck Officers

See 11.401 – 11.497

#### Subpart E—Professional Requirements for Engineer Officer

- § 11.501 Grade and type of engineer endorsements issued.
- § 11.502 Additional requirements for engineer endorsements.
- § 11.503 Horsepower limitations.
- § 11.504 Application of deck service for limited engineer endorsements.
- § 11.505 Engineer officer structure.
- § 11.510 Service requirements for chief engineer of steam and/or motor vessels.
- § 11.512 Service requirements for first assistant engineer of steam and/or motor vessels.
- § 11.514 Service requirements for second assistant engineer of steam and/or motor vessels.
- § 11.516 Service requirements for third assistant engineer of steam and/or motor vessels.
- § 11.518 Service requirements for chief engineer (limited oceans) of steam and/or motor vessels.
- § 11.520 Service requirements for chief engineer (limited near coastal) of steam and/or motor vessels.
- § 11.522 Service requirements for assistant engineer (limited oceans)
- § 11.524 Service requirements for designated duty engineer of steam and/or motor vessels.
- § 11.530 Endorsements for engineers of uninspected fishing industry vessels.

- § 11.540 Endorsements for engineers of mobile offshore drilling units.
- § 11.542 Endorsement as chief engineer (MODU).
- § 11.544 Endorsement as assistant engineer (MODU).
- § 11.551 Endorsements for service on offshore supply vessels.
- § 11.553 Chief Engineer (OSV).
- § 11.555 Engineer (OSV).

#### **Subpart G—Professional Requirements for Pilots**

**See 11.701-11.713**

#### **Subpart I—Subjects of Examinations and Practical Demonstrations of Competence**

- § 11.901 General provisions.
- § 11.903 Licenses requiring examinations.
- § 11.910 Subjects for deck officer endorsements.
- § 11.920 Subjects for MODU endorsements.
- § 11.950 Subjects for engineer endorsements.

### **46 CFR 12—REQUIREMENTS FOR RATING ENDORSEMENTS:**

#### **Section Contents**

#### **Subpart 12.02—General Requirements for Certification**

- § 12.02-11 General provisions respecting rating endorsements.
- § 12.02-17 Examination procedures and denial of rating endorsements.

#### **Subpart 12.03—Approved and Accepted Training**

- § 12.03-1 Coast Guard-accepted training other than approved courses.

#### **Subpart 12.05—Able Seamen**

- § 12.05-7 Service or training requirements.
- § 12.05-9 Examination and demonstration of ability.

#### **Subpart 12.10—Lifeboatman**

- § 12.10-1 Credentials required.
- § 12.10-3 General requirements.
- § 12.10-5 Examination and demonstration of ability.
- § 12.10-7 General provisions respecting an MMC or MMD endorsed as lifeboatman.
- § 12.10-9 Endorsement for proficiency in fast rescue boats.

#### **Subpart 12.15—Qualified Member of the Engine Department**

- § 12.15-7 Service or training requirements.
- § 12.15-9 Examination requirements.
- § 12.15-11 General provisions respecting an endorsement as qualified member of the engine department.
- § 12.15-13 Deck engine mechanic.
- § 12.15-15 Engineman.



## **Chapter 3**

### ***Deck Guide***

# **Manual for the Administration of** **Merchant Marine** **Deck Examinations**

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# Table of Contents

## **Chapter 3: Deck Guide Page**

### Summary of Deck Exam Module Codes 5-7

#### **SECTION 1**

<b><u>Oceans or Near Coastal Routes</u></b>	<b><u>8</u></b>
Information	9
Examination Structure Sheets Index	10-12
<u>Examination Structure Sheets-Oceans or Near Coastal Routes:</u>	
Chief Mate/Master-AGT	13,14
Third Mate/Second Mate-AGT	15,16
Master-NMT 500/1600 GRT	17,18
Mate-NMT 500/1600 GRT	19,20
Master-NMT 200 GRT	21,22
Mate-NMT 200 GRT	23
Master-NMT 100 GRT	24
Operator Un-Inspected Passenger Vessels	25
Master-UFIV	26,27
Mate-UFIV	27,28
Chief Mate/Master-OSV	29
Mate-OSV	30
Renewal-OSV	31
Auxiliary Sail	31
Assistance Towing	32

#### **SECTION 2**

<b><u>Great Lakes and Inland or Inland Routes</u></b>	<b><u>33</u></b>
Information	34
Examination Structure Sheets Index	35
<u>Examination Structure Sheets- Great Lakes and Inland or Inland Routes:</u>	
Master-AGT	36
Mate-AGT	37
Master/Mate-AGT, Renewal	37
Master-NMT 500/1600 GRT	38
Mate-NMT 500/1600 GRT	39
Master/Mate, Renewal	39
Master-NMT 200 GRT	40
Mate-NMT 200 GRT	41
Master-NMT 100 GRT	42
Mate/Master-NMT 200 GRT or Master-100 GRT	42
Renewal: Mate/Master-NMT 200 GRT or Master-100 GRT	43
Operator Un-Inspected Passenger Vessels	43, 44
Auxiliary Sail	45
Assistance Towing	45

### **SECTION 3**

<b><u>River Routes</u></b>	<b><u>46</u></b>
Information	47
Examination Structure Sheets Index	48
<u>Examination Structure Sheets- River Routes:</u>	
Master AGT or NMT 500/1600 GRT	49
Mate NMT 500/1600 GRT	50
Renewal: Master AGT or Master/Mate NMT 500/NMT 1600 GRT	50
Master/Mate NMT 200 GRT	51
Renewal: Master/Mate NMT 200 GRT	51
Auxiliary Sail	52
Assistance Towing	52

### **SECTION 4**

<b><u>First Class Pilot</u></b>	<b><u>53</u></b>
Examination Structure Sheets Index	54
<u>Examination Structure Sheets-First Class Pilots:</u>	
First Class Pilot	55
Renewal: First Class Pilot	56

### **SECTION 5**

<b><u>Uninspected Towing Vessels</u></b>	<b><u>57</u></b>
Examination Structure Sheets Index	58
<u>Examination Structure Sheets-Uninspected Towing Vessels:</u>	
Master TV Oceans	59
Master TV Near Coastal	59
Master TV Great Lakes and Inland	59
Master TV Western Rivers	60
Mate Pilot TV Oceans	60
Mate Pilot TV Near Coastal	61
Mate Pilot TV Great Lakes and Inland	61
Mate Pilot TV Western Rivers	62
Apprentice Mate Steersman TV Oceans	62
Apprentice Mate Steersman TV Near Coastal	63
Apprentice Mate Steersman TV Great Lakes and Inland	63
Apprentice Mate Steersman TV Western Rivers	63
Increase in Scope AMS/Mate Pilot/Master TV Oceans	64
Increase in Scope AMS/Mate Pilot/Master TV Near Coastal	64
Increase in Scope AMS/Mate Pilot/Master TV Great Lakes and Inland	65
Increase in Scope AMS/Mate Pilot/Master TV Western Rivers	65
Renewal, AMS/Mate Pilot/Master TV Oceans and Near Coastal	66
Renewal, AMS/Mate Pilot/Master TV Great Lakes and Inland	66
Renewal, AMS/Mate Pilot/Master TV Western Rivers	67

## **SECTION 6**

<b><u>Mobile Offshore Drilling Units</u></b>	<b>68</b>
Information	69
Examination Structure Sheets Index	70
<u>Examination Structure Sheets-MODU:</u>	
Offshore Installation Manager: Unrestricted	71
Offshore Installation Manager: Surface Units on Location	71
Offshore Installation Manager: Surface Units Underway	71
Offshore Installation Manager: Bottom Bearing Units on Location	72
Offshore Installation Manager: Bottom Bearing Units Underway	72
Renewal: Offshore Installation Manager	72
Barge Supervisor	72
Renewal: Barge Supervisor	73
Ballast Control Operator	73
Renewal: Ballast Control Operator	73

## **SECTION 7**

<b><u>Deck Rating Endorsements</u></b>	<b>74</b>
Information	75
Examination Structure Sheets Index	76
<u>Examination Structure Sheets- Deck Rating Endorsements:</u>	
<b><u>Lifeboatman:</u></b>	
Lifeboatman: Unlimited	77
Renewal: Lifeboatman: Unlimited	77
Lifeboatman: Limited	78
Renewal: Lifeboatman: Limited	78
<b><u>AB:</u></b>	
AB: Unlimited/Limited/Special/OSV Special/Fishing Industry	79
Renewal: AB: Unlimited/Limited/Special/OSV Special	79
AB: Sail	80
Renewal: AB: Sail	80
Practical Assessment: Marlinespike Seamanship	81-82
<b><u>Tankerman Renewal:</u></b>	
Tankerman: PIC or Engineer- Dangerous Liquids	83
Tankerman: PIC or Engineer- Liquified Gas	83
Tankerman: PIC Barge Dangerous Liquids	83
Tankerman: PIC Barge Liquified Gas	83
Tankerman: Assistant Dangerous Liquids	83
Tankerman: Assistant Liquified Gas	84

# **SUMMARY OF DECK EXAMINATION MODULE CODES**

## **Oceans or Near Coastal Routes**

### **UNLIMITED DECK LICENSES**

<b><u>MODULE CODE</u></b>	<b><u>MODULE NAME</u></b>
15XXX	Chief Mate/Master (Management)
109XX	Chief Mate/Master (Management) - Renewal/Refresher Exercise
14XXX	Third Mate/Second Mate (OICNW)
129XX	Third Mate/Second Mate (OICNW) - Renewal/Refresher Exercise

### **LIMITED DECK LICENSES**

<b><u>MODULE CODE</u></b>	<b><u>MODULE NAME</u></b>
011X1	Master NMT 1600 GRT – Partial Module
20XXX	Master NMT 500/1600 GRT
18XXX	Mate NMT 500/1600 GRT
129XX	Mate NMT 500/1600 GRT - Renewal/Refresher Exercise
22XXX	Master or Mate NMT 200 GRT or Master NMT 100 GRT
011X3	Master/Mate NMT 200 GRT – Partial Module
011X2	Mate NMT 100 GRT – Partial Module
39XXX	Operator Un-Inspected Passenger Vessel

### **UN-INSPECTED FISHING VESSEL LICENSES**

<b><u>MODULE CODE</u></b>	<b><u>MODULE NAME</u></b>
20XXX	Master UFIV
18XXX	Mate UFIV

### **OFFSHORE SUPPLY VESSEL LICENSES**

<b><u>MODULE CODE</u></b>	<b><u>MODULE NAME</u></b>
20XXX	Master or Chief Mate
18XXX	Mate
169XX	Master, Chief Mate, or Mate OSV - Renewal/Refresher Exercise

## **Great Lakes and Inland or Inland Routes**

### **UNLIMITED DECK LICENSES**

<b><u>MODULE CODE</u></b>	<b><u>MODULE NAME</u></b>
23XXX	Master
24XXX	Mate
249XX	Master/Mate - Renewal/Refresher Exercise

### **LIMITED DECK LICENSES**

<b><u>MODULE CODE</u></b>	<b><u>MODULE NAME</u></b>
25XXX	Master NMT 500/1600 GRT
26XXX	Mate NMT 500/1600 GRT
259XX	Master/Mate NMT 500/16000 GRT - Renewal/Refresher Exercise
27XXX	Master/Mate NMT 200 GRT or Master NMT 100 GRT
011X4	Master/Mate NMT 200 GRT – Partial Module
011X2	Mate NMT 100 GRT – Partial Module
39XXX	Operator Un-Inspected Passenger Vessel

### **River Routes**

<b><u>MODULE CODE</u></b>	<b><u>MODULE NAME</u></b>
30XXX	Master AGT NMT 500/1600 GRT
31XXX	Mate NMT 500/1600 GRT
309XX	Mate NMT 500/1600 GRT - Renewal/Refresher Exercise
32XXX	Master/Mate NMT 200 GRT or Master NMT 100 GRT

### **TOWING VESSEL LICENSES**

<b><u>MODULE CODE</u></b>	<b><u>MODULE NAME</u></b>
34XXX	Master/Mate Pilot/Apprentice Mate Steersman Oceans or Near Coastal
35XXX	Master/Mate Pilot/Apprentice Mate Steersman Great Lakes and Inland
36XXX	Master/Mate Pilot/Apprentice Mate Steersman Western Rivers

### **MOBILE OFFSHORE DRILLING UNIT LICENSES**

<b><u>MODULE CODE</u></b>	<b><u>MODULE NAME</u></b>
92XXX	Offshore Installation Manager – Unrestricted
93XXX	Offshore Installation Manager – Surface Units on Location
94XXX	Offshore Installation Manager – Surface Units Underway
95XXX	Offshore Installation Manager – Bottom Bearing Units on Location
96XXX	Offshore Installation Manager – Bottom Bearing Units Underway
929XX	Offshore Installation Manager – Renewal/Refresher Exercise
91XXX	Barge Supervisor
90XXX	Ballast Control Officer

### **RULES OF THE ROAD MODULES**

<b><u>MODULE CODE</u></b>	<b><u>MODULE NAME</u></b>
054XX	Rules of the Road: Inland and International
059XX	Rules of the Road: Inland and International – Renewal/Refresher Exercise
066XX	Rules of the Road: Inland
069XX	Rules of the Road: Inland– Renewal/Refresher Exercise

### **NAVIGATION MODULES**

#### **MODULE CODE**

#### **MODULE NAME**

072XX

Navigation General – Any Appropriate License

07XXX

Navigation Problems – Any Appropriate License

### **FIRST CLASS PILOT LICENSES**

#### **MODULE CODE**

#### **MODULE NAME**

03XXX

First Class Pilot Any Appropriate Tonnage

### **TOWING/SAILING ENDORSEMENTS**

#### **MODULE CODE**

#### **MODULE NAME**

017XXX

Assistance Towing Endorsement

018XXX

Sail Endorsement

### **SUPPORT LEVEL ENDORSEMENTS**

#### **Able Seaman**

#### **MODULE CODE**

#### **MODULE NAME**

45XXX

Able Seaman – Unlimited/Limited/Special/Fishing Industry

46XXX

Able Seaman – Offshore Supply Vessel

43XXX

Able Seaman – Sail

#### **Lifeboatman**

#### **MODULE CODE**

#### **MODULE NAME**

48XXX

Lifeboatman

44XXX

Lifeboatman – Limited

#### **Tankerman**

#### **MODULE CODE**

#### **MODULE NAME**

970XX

Tankerman Person in Charge/Engineer Dangerous Liquids

971XX

Tankerman Person in Charge/Engineer Liquefied Gases

972XX

Tankerman Person in Charge Barge Dangerous Liquids

973XX

Tankerman Person in Charge Barge Liquefied Gases

974XX

Tankerman Assistant Dangerous Liquids

975XX

Tankerman Assistant Liquefied Gases

## **Chapter 3-Section One**

### **Oceans or Near Coastal Routes**



## **SECTION ONE: Oceans or Near Coastal Routes**

### **Ocean Routes**

IAW 46CFR10.107 the term **OCEANS** means the waters seaward of the Boundary Lines as described in 46 CFR part 7. For the purposes of establishing sea service credit, the waters of the Inside Passage between Puget Sound and Cape Spencer, Alaska, are not considered oceans.

IAW 46CFR11.401(a) Any license or MMC endorsement for service as master or mate on ocean waters qualifies the mariner to serve in the same grade on any waters, subject to the limitations of the endorsement.

- Ocean Waters include Near Coastal waters.

### **Near Coastal Routes**

IAW 46CFR10.107 the term **Near Coastal** means ocean waters not more than 200 miles offshore.

IAW 46CFR11.401 (b) A license or MMC endorsement issued for service as master or mate on near-coastal waters qualifies the mariner to serve in the same grade on near-coastal, Great Lakes, and inland waters, subject to the limitations of the endorsement.

### **IAW 46CFR11.401 License Endorsement Requirements**

(g) In order to obtain a master or mate endorsement with a tonnage limit above 200 gross tons, or an endorsement for 200 gross tons or less with an ocean route, whether an original, raise in grade, or increase in the scope of the endorsement authority to a higher tonnage category, the applicant must successfully complete the following training and examination requirements:

(1) Approved firefighting course;

(2) Approved radar-observer course; and

(3) Qualification as an able seaman unlimited or able seaman limited (able seaman special or able seaman offshore supply vessels satisfy the able seaman requirement for endorsements permitting service on vessels of 1,600 gross tons or less).

(h) Each applicant for a deck officer endorsement, which authorizes service on vessels above 1,600 gross tons on ocean or near-coastal waters, whether original or raise of grade, must pass a practical-signaling examination (flashing light). An applicant who fails in practical signaling, but passes every other part of the examination, may be issued an endorsement with a 1,600 gross ton limitation. The tonnage limitation can be removed upon successful completion of the signaling examination

## **Examination Structure Sheet Index**

### **Oceans OR Near Coastal License Endorsements**

#### **ANY GROSS REGISTERED TONS (AGT):**

##### **Management Level**

###### **Raise in Grade**

Chief Mate/Master AGT Oceans or Near Coastal ESS 1-1

###### **Increase in Scope**

Master/Chief Mate AGT Near Coastal to Oceans and Near Coastal ESS 1-2

###### **Renewal**

Master/Chief Mate AGT Oceans and Near Coastal or Near Coastal ESS 1-3

##### **Operational Level**

###### **Original /Raise in Grade**

Third Mate/Second Mate AGT Oceans or Near Coastal ESS 1-4

###### **Increase in Scope**

Third Mate/Second Mate AGT Near Coastal to Oceans ESS 1-5

###### **Renewal**

Third Mate/Second Mate AGT Oceans or Near Coastal ESS 1-6

#### **LIMITED TONNAGE NMT 500/1600 GROSS REGISTERED TONS (GRT):**

###### **Raise in Grade or Increase in Scope**

Master NMT 500/1600 GRT Oceans or Near Coastal ESS 1-7

###### **Increase in Scope**

Master NMT 500/1600 GRT Near Coastal to Oceans ESS 1-8

###### **Renewal**

Master NMT 500/1600 GRT Oceans or Near Coastal ESS 1-9

###### **Original Issue or Increase in Scope**

Mate NMT 500/1600 GRT Oceans or Near Coastal ESS 1-10

###### **Increase in Scope**

Mate NMT 500/1600 GRT Near Coastal to Oceans ESS 1-11

###### **Renewal**

Mate NMT 500/1600 GRT Oceans or Near Coastal ESS 1-12

**LIMITED TONNAGE NMT 200 GROSS REGISTERED TONS (GRT) AND BELOW:**

**Original Issue or Raise in Grade**

Master NMT 200 GRT Oceans or Near Coastal ESS 1-13

**Increase in Scope**

Master NMT 100 GRT Near Coastal to Master NMT 200 GRT Near Coastal ESS 1-14

Master NMT 200 GRT Near Coastal to Oceans ESS 1-15

**Renewal**

Master NMT 200 GRT Oceans or Near Coastal ESS 1-16

**Original Issue or Raise in Grade**

Mate NMT 200 GRT Near Coastal ESS 1-17

**Renewal**

Mate NMT 200 GRT Near Coastal ESS 1-18

**Original Issue or Raise in Grade**

Master NMT 100 GRT Near Coastal ESS 1-19

**Renewal**

Master NMT 100 GRT Near Coastal ESS 1-20

**Original Issue**

Operator Uninspected Passenger Vessel Near Coastal ESS 1-21

**Renewal**

Operator Uninspected Passenger Vessel Near Coastal ESS 1-22

**UNINSPECTED FISHING VESSELS (UFIV) ANY APPROPRIATE TONNAGE (AAT):**

**Original Issue or Raise in Grade**

Master UFIV Oceans or Near Coastal ESS 1-23

**Increase in Scope**

Master UFIV Near Coastal to Oceans ESS 1-24

**Renewal**

Master UFIV Oceans or Near Coastal ESS 1-25

**Original Issue**

Mate UFIV Oceans or Near Coastal ESS 1-26

**Increase in Scope**

Mate UFIV Near Coastal to Oceans ESS 1-27

**Renewal**

Mate UFIV Oceans or Near Coastal ESS 1-28

**OFFSHORE SUPPLY VESSELS (OSV) ANY APPROPRIATE TONNAGE (AAT):**

**Raise in Grade**

Master OSV Oceans or Near Coastal ESS 1-29

Chief Mate OSV Oceans or Near Coastal ESS 1-30

**Increase in Scope**

Master/Chief Mate OSV Near Coastal to Oceans ESS 1-31

**Original Issue**

Mate OSV Oceans or Near Coastal ESS 1-32

**Increase in Scope**

Mate OSV Near Coastal to Oceans ESS 1-33

**Renewal**

Master/Chief Mate/Mate OSV Oceans or Near Coastal ESS 1-34

**ADDITIONAL ENDORSEMENTS ANY APPROPRIATE TONNAGE (AAT):**

Master or Mate Auxiliary Sail Oceans or Near Coastal ESS 1-35

Master or Mate Assistance Towing Oceans or Near Coastal ESS 1-36

EXAMINATION STRUCTURE SHEET NO. 1-1	Endorsement - <b>CHIEF MATE/MASTER</b> Tonnage Group- <b>ANY GROSS REGISTERED TONS (AGT)</b> Route- <b>OCEANS OR NEAR COASTAL</b> Action- <b>RAISE IN GRADE (from Second Mate/Chief Mate AGT-O or NC)</b>	EXAM CODE <b>15BR</b>
MODULES		MINIMUM SCORE
054XX Rules of the Road: International and Inland	50	90
151XX Deck General: Part A	50	70
152XX Deck General: Part B	50	70
153XX Navigation General	70	70
154XX Deck Safety and Environmental Protection	70	70
155XX Deck Safety: Stability	15	70
156XX Navigation Problems: Chart Plot	10	90
157XX Navigation Problems: Near Coastal	10	90
158XX Navigation Problems: Oceans	15	80

\* **SERVICE REQUIREMENT for CHIEF MATE**

**46CFR 11.405**

\* **SERVICE REQUIREMENT for MASTER**

**46CFR 11.404**

\* **LICENSING NOTES**

Applicants Raising Grade from Chief Mate Oceans or Near Coastal to Master Oceans or Near Coastal may do so without testing if they were originally issued a Chief Mate Oceans or Near Coastal endorsement **after** 1 February 2002. All others must meet the requirements of this ESS.

Applicants testing for Near Coastal Routes do **NOT** take Module 158XX

**46CFR 11.401(e):** Applicants holding Master AGT Great Lakes and Inland may increase the scope of their endorsement to a Near Coastal route by completing all modules of this ESS after meeting the training requirements in 46CFR 11.401(g) and ALL Operational and Management level STCW requirements.

**46CFR 11.412 (b):** Applicants holding an endorsement as Chief Mate AGT Oceans or Near Coastal originally issued **after** 1 February 2002 do not require testing to add endorsement for Master NMT 1600 GRT on the same route.

Applicants holding an endorsement as Chief Mate AGT Oceans or Near Coastal originally issued **prior** 1 February 2002 must take module 011X1 Deck/Navigation General and Deck Safety to add endorsement for Master NMT 1600 GRT on the same route.

EXAMINATION STRUCTURE SHEET NO. 1-2	Endorsement - <b>CHIEF MATE/ MASTER</b> Tonnage Group- <b>ANY GROSS REGISTERED TONS (AGT)</b> Route- <b>OCEANS</b> Action- <b>INCREASE IN SCOPE (from Near Coastal)</b>	EXAM CODE <b>15BC</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
158XX Ocean Navigation Problems		15
150XX Navigation General		20
		<b>MINIMUM SCORE</b>
		80
		70

\* **SERVICE REQUIREMENT**

**46CFR 11.401(e)**

\* **LICENSING NOTES**

In addition to the examination requirements applicants must show successful completion of the following Control Sheets from NMC Policy Letter 04-02:

Performance Standards for Assessment of Competence, Masters and Chief Mates on Ships of 3000 Gross Tons or More (ITC), STCW Table A-II/2

M-1-2A	Latitude by Ex-Meridian (Sun)
M-1-2B	Latitude by Meridian Transit (Other than Sun)
M-1-2C	Star Identification
M-1-2D	Star Selection
M-1-2E	LOP from High Altitude Sight
M-1-2F	Celestial Navigation Fix
M-1-2G	Great Circle Sailing
M-1-2H	Mercator Sailing Course and Distance
M-1-2I	Mercator Sailing Final Position

EXAMINATION STRUCTURE SHEET NO. 1-3	Endorsement - <b>CHIEF MATE/ MASTER</b> Tonnage Group- <b>ANY GROSS REGISTERED TONS (AGT)</b> Route- <b>OCEANS OR NEAR COASTAL</b> Action- <b>RENEWAL</b>	EXAM CODE <b>15RE</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
059XX Rules of the Road: International and Inland		30
109XX Refresher Exercise		50
		<b>MINIMUM SCORE</b>
		90
		90

\* **SERVICE REQUIREMENT**

**46CFR 10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

EXAMINATION STRUCTURE SHEET NO. 1-4	Endorsement - Tonnage Group- Route- Action-	<b>THIRD MATE/SECOND MATE ANY GROSS REGISTERED TONS (AGT) OCEANS OR NEAR COASTAL ORIGINAL ISSUE RAISE IN GRADE (from Third Mate AGT O or NC) INCREASE IN SCOPE (from Master AGT GL &amp; I or I)</b>	EXAM CODE <b>14BR</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
054XX	Rules of the Road: International and Inland	50	90
141XX	Deck General	70	70
142XX	Navigation General	70	70
143XX	Deck Safety and Environmental Protection	70	70
144XX	Navigation Problems: Chart Plot	15	87
145XX	Navigation Problems: Near Coastal	10	90
146XX	Navigation Problems: Oceans	15	80

\* **SERVICE REQUIREMENT for THIRD MATE**

**46CFR 11.407**

\* **SERVICE REQUIREMENT for SECOND MATE**

**46CFR 11.406**

\* **LICENSING NOTES**

Applicants Raising Grade from Third Mate to Second Mate may do so without testing if they were originally issued a Third Mate Any Gross Tons Oceans or Near Coastal endorsement **after** 1 February 2002. All others must meet the requirements of this ESS.

Applicants testing for Near Coastal Routes do **NOT** take Module 146XX

USCG approved OICNW Celestial Navigation Courses **CANNOT** be used in lieu of any of the examinations prescribed above

**46CFR 11.401(e):** Applicants holding Mate AGT Great Lakes and Inland may increase the scope of their endorsement to a Near Coastal route completing all modules of this ESS after meeting the training requirements in 46CFR 11.401(g) and ALL Operational STCW requirements.

**46CFR 11.412(b):** Applicants who meet all requirements for Second Mate AGT Oceans or Near Coastal can add this endorsement by taking module 011X1 Deck/Navigation General and Deck Safety to add endorsement for Master NMT 1600 GRT on the same route.

EXAMINATION STRUCTURE SHEET NO. 1-5	Endorsement - <b>THIRD MATE/SECOND MATE</b> Tonnage Group- <b>ANY GROSS REGISTERED TONS (AGT)</b> Route- <b>OCEANS</b> Action- <b>INCREASE IN SCOPE (from NC)</b>	EXAM CODE <b>14BI</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
146XX Navigation Problems: Oceans		15
147XX Navigation General		20
		<b>MINIMUM SCORE</b>
		80
		70

\* **SERVICE REQUIREMENT**

**46CFR 11.401(e)**

\* **LICENSING NOTES**

In addition to the examination requirements applicants must show successful completion of the following Control Sheets from NMC Policy Letter 01-02:

Performance Standards for Assessment of Competence, Officer in Charge of a Navigational Watch on Ships of 500 Gross Tons or More (ITC), STCW Table A-II/1

OICNW-1-1A	Adjust a Sextant
OICNW-1-1B	Measure Altitude of the Sun
OICNW-1-1C	Measure Altitude of at least three stars
OICNW-1-1D	Measure Altitude of the Sun at Meridian Passage
OICNW-1-1E	Celestial Navigation Running Fix
OICNW-1-1F	Celestial Navigation Star Fix

In addition to the examination requirements applicants must show successful completion of a USCG approved OICNW Celestial Navigation Course however, the course **CANNOT** be used in lieu of the examinations prescribed above

EXAMINATION STRUCTURE SHEET NO. 1-6	Endorsement - <b>THIRD MATE/SECOND MATE</b> Tonnage Group- <b>ANY GROSS REGISTERED TONS (AGT)</b> Route- <b>OCEANS or NEAR COASTAL</b> Action- <b>RENEWAL</b>	EXAM CODE <b>14RE</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
059XX Rules of the Road: International and Inland		30
129XX Refresher Exercise		50
		<b>MINIMUM SCORE</b>
		90
		90

\* **SERVICE REQUIREMENT**

**46CFR 10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.



EXAMINATION STRUCTURE SHEET NO. 1-7	Endorsement - <b>MASTER</b> Tonnage Group- <b>NMT 500/1600 GROSS REGISTERED TONS</b> Route- <b>OCEANS OR NEAR COASTAL</b> Action- <b>RAISE IN GRADE (from Mate NMT 500 GRT O or NC)</b> <b>RAISE IN GRADE (from Mate NMT 1600 GRT O or NC)</b> <b>INCREASE IN SCOPE (from Master NMT 500 GRT O or NC)</b>	EXAM CODE <b>20BR</b>
MODULES		MINIMUM SCORE
054XX Rules of the Road: International and Inland	50	90
201XX Deck General	50	70
200XX Navigation General: Near Coastal	50	70
202XX Navigation General: Oceans	50	70
203XX Deck Safety and Environmental Protection	50	70
204XX Navigation Problems: Chart Plot	10	90
205XX Navigation Problems: Near Coastal	10	90
206XX Navigation Problems: Oceans	15	80

\* **SERVICE REQUIREMENT for MASTER NMT 500**

**46CFR 11.418**

\* **LICENSING NOTES**

Applicants for Ocean Routes take all of the above modules **EXCEPT** 200XX.

Applicants for Near Coastal routes take all of the above modules **EXCEPT** 202XX and 206XX.

**46CFR 11.418(b):** Applicants holding an endorsement as Master or Mate Pilot of Towing Vessels Oceans or Near Coastal who meet the sea service requirement can raise the grade of their license to Master NMT 500 GRT on the same route, and **ONLY** the following modules are required:

MODULES	NUMBER OF QUESTIONS	MINIMUM SCORE
054XX Rules of the Road: International and Inland	50	90
011X1 Deck General	70	70
203XX Deck Safety and Environmental Protection	70	70

\* **SERVICE REQUIREMENT for MASTER NMT 1600**

**46CFR 11.412**

\* **LICENSING NOTES**

Applicants holding an endorsement as NMT 500 GRT Master Oceans or Near Coastal, originally issued **after** 1 February 2002, may increase the scope of their license to NMT 1600 GRT by presenting evidence of the required sea time. No further testing is required.

Applicants for Ocean Routes take all of the above modules **EXCEPT** 200XX.

Applicants for Near Coastal routes take all of the above modules **EXCEPT** 202XX and 206XX.

**46CFR 11.412(b):** Applicants holding an endorsement as Chief Mate AGT Oceans or Near Coastal originally issued **after** 1 February 2002 do not require testing to add this endorsement.

Applicants holding an endorsement as Chief Mate AGT Oceans or Near Coastal originally issued **prior** 1 February 2002 must take module 011X1 Deck/Navigation General and Deck Safety.

Applicants who meet all requirements for Second Mate AGT Oceans or Near Coastal can add this endorsement by taking module 011X1 Deck/Navigation General and Deck Safety.

EXAMINATION STRUCTURE SHEET NO. 1-8	Endorsement - <b>MASTER</b> Tonnage Group- <b>NMT 500/1600 GROSS REGISTERED TONS</b> Route- <b>OCEANS</b> Action- <b>INCREASE IN SCOPE (from NC)</b>	EXAM CODE <b>20DI</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
206XX Navigation Problems: Oceans		15
207XX Navigation General		20
		<b>MINIMUM SCORE</b>
		80
		70

\* **SERVICE REQUIREMENT**

**None**

\* **LICENSING NOTES**

In addition to the examination requirements applicants must show successful completion of the following Control Sheets from NMC Policy Letter 01-02:

Performance Standards for Assessment of Competence, Officer in Charge of a Navigational Watch on Ships of 500 Gross Tons or More (ITC), STCW Table A-II/1

OICNW-1-1A	Adjust a Sextant
OICNW-1-1B	Measure Altitude of the Sun
OICNW-1-1C	Measure Altitude of at least three stars
OICNW-1-1D	Measure Altitude of the Sun at Meridian Passage
OICNW-1-1E	Celestial Navigation Running Fix
OICNW-1-1F	Celestial Navigation Star Fix

In addition to the examination requirements applicants must show successful completion of a USCG approved OICNW Celestial Navigation Course. If the course is US Coast Guard approved for such it **may** be presented in lieu of the examinations and/or assessments prescribed above

EXAMINATION STRUCTURE SHEET NO. 1-9	Endorsement - <b>MASTER</b> Tonnage Group- <b>NMT 500/1600 GROSS REGISTERED TONS</b> Route- <b>OCEANS or NEAR COASTAL</b> Action- <b>RENEWAL</b>	EXAM CODE <b>20RE</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
059XX Rules of the Road: International and Inland		30
209XX Refresher Exercise		30
		<b>MINIMUM SCORE</b>
		90
		90

\* **SERVICE REQUIREMENT**

**46CFR 10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

EXAMINATION STRUCTURE SHEET NO. 1-10	Endorsement - <b>MATE</b> Tonnage Group- <b>NMT 500/1600 GROSS REGISTERED TONS</b> Route- <b>OCEANS OR NEAR COASTAL</b> Action- <b>ORIGINAL ISSUE</b> <b>INCREASE IN SCOPE (from Mate NMT 500 GRT O or NC)</b>	EXAM CODE <b>21DR</b>
MODULES		MINIMUM SCORE
054XX Rules of the Road: International and Inland	50	90
181XX Deck General	70	70
180XX Navigation General: Near Coastal	70	70
182XX Navigation General: Oceans	70	70
183XX Deck Safety and Environmental Protection	70	70
184XX Navigation Problems: Chart Plot	15	87
185XX Navigation Problems: Near Coastal	10	90
186XX Navigation Problems: Oceans	15	80

\* **SERVICE REQUIREMENT for Mate NMT 500 Oceans** **46CFR 11.420**

\* **SERVICE REQUIREMENT for Mate NMT 500 Near Coastal** **46CFR 11.421**

\* **LICENSING NOTES**

Applicants holding an endorsement as Mate NMT 500 GRT Oceans or Near Coastal, originally issued **after** 1 February 2002, may increase the scope of their license to NMT 1600 GRT by presenting evidence of the required sea time. No further testing is required.

Applicants for Ocean Routes take all of the above modules **EXCEPT** 180XX.

Applicants for Near Coastal routes take all of the above modules **EXCEPT** 182XX and 186XX.

\* **SERVICE REQUIREMENT for Mate NMT 1600 Oceans** **46CFR 11.414**

\* **SERVICE REQUIREMENT for Mate NMT 1600 Near Coastal** **46CFR 11.416**

EXAMINATION STRUCTURE SHEET NO. 1-11	Endorsement - <b>MATE</b> Tonnage Group- <b>NMT 500/1600 GROSS REGISTERED TONS</b> Route- <b>OCEANS</b> Action- <b>INCREASE IN SCOPE (from NC)</b>	EXAM CODE <b>21DI</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
186XX Navigation Problems: Oceans		15
187XX Navigation General		20
		<b>MINIMUM SCORE</b>
		80
		70

\* **SERVICE REQUIREMENT**

**46CFR 11.414**

\* **LICENSING NOTES**

In addition to the examination requirements applicants must show successful completion of the following Control Sheets from NMC Policy Letter 01-02:

Performance Standards for Assessment of Competence, Officer in Charge of a Navigational Watch on Ships of 500 Gross Tons or More (ITC), STCW Table A-II/1

OICNW-1-1A	Adjust a Sextant
OICNW-1-1B	Measure Altitude of the Sun
OICNW-1-1C	Measure Altitude of at least three stars
OICNW-1-1D	Measure Altitude of the Sun at Meridian Passage
OICNW-1-1E	Celestial Navigation Running Fix
OICNW-1-1F	Celestial Navigation Star Fix

In addition to the examination requirements applicants must show successful completion of a USCG approved OICNW Celestial Navigation Course. If the course is US Coast Guard approved for such it **may** be presented in lieu of the examinations and/or assessments prescribed above

EXAMINATION STRUCTURE SHEET NO. 1-12	Endorsement - <b>MATE</b> Tonnage Group- <b>NMT 500/1600 GROSS REGISTERED TONS</b> Route- <b>OCEANS OR NEAR COASTAL</b> Action- <b>RENEWAL</b>	EXAM CODE <b>21RE</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
059XX Rules of the Road: International and Inland		30
129XX Refresher Exercise		50
		<b>MINIMUM SCORE</b>
		90
		90

\* **SERVICE REQUIREMENT**

**46CFR 10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. Completed exams must be returned to the Regional Exam Center for grading within thirty days.

EXAMINATION STRUCTURE SHEET NO. 1-13	Endorsement - <b>MASTER</b> Tonnage Group- <b>NMT 200 GROSS REGISTERED TONS</b> Route- <b>OCEANS OR NEAR COASTAL</b> Action- <b>ORIGINAL ISSUE</b> <b>RAISE IN GRADE (from Master of Towing Vessels O or NC)</b> <b>RAISE IN GRADE (from Mate NMT 200 GRT NC)</b>	EXAM CODE <b>22KR</b>
MODULES		MINIMUM SCORE
054XX Rules of the Road: International and Inland	50	90
011X3 Deck General	20	70
072X1 Navigation General	20	70
221XX Deck Safety and Environmental Protection	70	70
073XX Navigation Problems: Chart Plot	20	90
078XX Navigation Problems: Oceans	5	80

\* **SERVICE REQUIREMENT for Oceans**

**46CFR 11.424**

\* **SERVICE REQUIREMENT for Near Coastal**

**46CFR 11.426**

\* **LICENSING NOTES**

**46CFR11.903(b):** When Raising Grade **from** Mate NMT 200 GRT Near Coastal **to** Master NMT 200 GRT Near Coastal **no exam is required.** When Raising Grade **from** Mate NMT 200 GRT Near Coastal **to** Master NMT 200 GRT Oceans **ONLY module 078XX is required.**

When Raising Grade **from** Master or Mate Pilot of Towing Vessels Oceans or Near Coastal to Master NMT 200 GRT on the same route, **ONLY** the following modules are required:

MODULES	NUMBER OF QUESTIONS	MINIMUM SCORE
054XX Rules of the Road: International and Inland	50	90
011X3 Deck General	20	70
221XX Deck Safety and Environmental Protection	70	70

EXAMINATION STRUCTURE SHEET NO. 1-14	Endorsement - <b>MASTER</b> Tonnage Group- <b>NMT 200 GROSS REGISTERED TONS</b> Route- <b>NEAR COASTAL</b> Action- <b>INCREASE IN SCOPE (from Master NMT 100 GRT NC)</b>	EXAM CODE <b>22HO</b>
MODULES		MINIMUM SCORE
054XX Rules of the Road: International and Inland	50	90
011X3 Deck General	20	70
073XX Navigation Problems: Chart Plot	20	90

\* **SERVICE REQUIREMENT**

**46CFR 11.426**

EXAMINATION STRUCTURE SHEET NO. 1-15	Endorsement - <b>MASTER</b> Tonnage Group- <b>NMT 200 GROSS REGISTERED TONS</b> Route- <b>OCEANS</b> Action- <b>INCREASE IN SCOPE (from NC)</b>	EXAM CODE <b>22JI</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
078XX Navigation Problems: Oceans		80

\* **SERVICE REQUIREMENT**

**46CFR 11.424**

\* **LICENSING NOTES**

Applicants who wish to Increase the scope of a Master NMT 100 GRT Near Coastal to Master NMT 200 GRT Oceans must complete the requirements of ESS 1-14 **AND** 1-15.

EXAMINATION STRUCTURE SHEET NO. 1-16	Endorsement - <b>MASTER</b> Tonnage Group- <b>NMT 200 GROSS REGISTERED TONS</b> Route- <b>OCEANS OR NEAR COASTAL</b> Action- <b>RENEWAL</b>	EXAM CODE <b>22RR</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
059XX Rules of the Road: International and Inland		90
229XX Refresher Exercise		90

\* **SERVICE REQUIREMENT**

**46CFR 10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

EXAMINATION STRUCTURE SHEET NO. 1-17	Endorsement - Tonnage Group- Route- Action-	<b>MATE</b> <b>NMT 200 GROSS REGISTERED TONS</b> <b>NEAR COASTAL</b> <b>ORIGINAL ISSUE</b> <b>RAISE IN GRADE (from OUPV NC)</b>	EXAM CODE <b>21DE</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
054XX	Rules of the Road: International and Inland	50	90
011X3	Deck General	20	70
072X1	Navigation General	20	70
221XX	Deck Safety and Environmental Protection	70	70
073XX	Navigation Problems: Chart Plot	20	90

\* **SERVICE REQUIREMENT**

**46CFR 11.427**

\* **LICENSING NOTES**

When Raising Grade **from** Operator Uninspected passenger Vessel Near Coastal **ONLY** the following module is required:

MODULES	NUMBER OF QUESTIONS	MINIMUM SCORE
011X2 Deck General	10	70

EXAMINATION STRUCTURE SHEET NO. 1-18	Endorsement - Tonnage Group- Route- Action-	<b>MATE</b> <b>NMT 200 GROSS REGISTERED TONS</b> <b>NEAR COASTAL</b> <b>RENEWAL</b>	EXAM CODE <b>22RR</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
059XX	Rules of the Road: International and Inland	30	90
229XX	Refresher Exercise	20	90

\* **SERVICE REQUIREMENT**

**46CFR 10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

EXAMINATION STRUCTURE SHEET NO. 1-19	Endorsement - Tonnage Group- Route- Action-	<b>MASTER NMT 100 GROSS REGISTERED TONS NEAR COASTAL ORIGINAL ISSUE RAISE IN GRADE (from OUPV NC)</b>	EXAM CODE <b>21DE</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
054XX	Rules of the Road: International and Inland	50	90
011X3	Deck General	20	70
072X1	Navigation General	20	70
221XX	Deck Safety and Environmental Protection	70	70
073XX	Navigation Problems: Chart Plot	20	90

\* **SERVICE REQUIREMENT**

**46CFR 11.428**

\* **LICENSING NOTES**

When Raising Grade **from** Operator Uninspected Passenger Vessel Near Coastal **ONLY** the following module is required:

<b>MODULES</b>	<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
221XX Deck Safety and Environmental Protection	70	70

EXAMINATION STRUCTURE SHEET NO. 1-20	Endorsement - Tonnage Group- Route- Action-	<b>MASTER NMT 100 GROSS REGISTERED TONS NEAR COASTAL RENEWAL</b>	EXAM CODE <b>22RR</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
059XX	Rules of the Road: International and Inland	30	90
229XX	Refresher Exercise	20	90

\* **SERVICE REQUIREMENT**

**46CFR 10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.



EXAMINATION STRUCTURE SHEET NO. 1-21	Endorsement - Tonnage Group- Route- Action-	<b>OPERATOR</b> <b>UNINSPECTED PASSENGER VESSEL</b> <b>NEAR COASTAL</b> <b>ORIGINAL ISSUE</b>	EXAM CODE <b>39AA</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
054XX Rules of the Road: International and Inland		50	90
072X1 Navigation General		20	70
391XX Deck Safety and Environmental Protection		60	70
077XX Navigation Problems: Chart Plot		10	70

\* **SERVICE REQUIREMENT**

**46CFR 11.467**

\* **LICENSING NOTES**

An OUPV Near Coastal endorsement will be limited to waters 100 nm offshore.

EXAMINATION STRUCTURE SHEET NO. 1-22	Endorsement - Tonnage Group- Route- Action-	<b>OPERATOR</b> <b>UNINSPECTED PASSENGER VESSEL</b> <b>NEAR COASTAL</b> <b>RENEWAL</b>	EXAM CODE <b>39RE</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
059XX Rules of the Road: International and Inland		30	90
399XX Refresher Exercise		20	90

\* **SERVICE REQUIREMENT**

**46CFR 10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

EXAMINATION STRUCTURE SHEET NO. 1-23	Endorsement - Tonnage Group- Route- Action-	<b>MASTER UNINSPECTED FISHING VESSEL ANY APPROPRIATE TONNAGE OCEANS OR NEAR COASTAL ORIGINAL RAISE IN GRADE (from Mate UFIV O or NC)</b>	EXAM CODE <b>20BR</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
054XX	Rules of the Road: International and Inland	50	90
201XX	Deck General	50	70
200XX	Navigation General: Near Coastal	50	70
202XX	Navigation General: Oceans	50	70
203XX	Deck Safety and Environmental Protection	50	70
204XX	Navigation Problems: Chart Plot	10	90
205XX	Navigation Problems: Near Coastal	10	90
206XX	Navigation Problems: Oceans	15	80

\* **SERVICE REQUIREMENT**

**46CFR 11.462**

\* **LICENSING NOTES**

See **46CFR 11.462** for calculation of Tonnage Limitation

Applicants for Ocean Routes take all of the above modules **EXCEPT** 200XX.

Applicants for Near Coastal routes take all of the above modules **EXCEPT** 202XX and 206XX.

EXAMINATION STRUCTURE SHEET NO. 1-24	Endorsement - Tonnage Group- Route- Action-	<b>MASTER UNINSPECTED FISHING VESSEL ANY APPROPRIATE TONNAGE OCEANS INCREASE IN SCOPE (from NC)</b>	EXAM CODE <b>20DI</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
206XX	Navigation Problems: Oceans	15	80
207XX	Navigation General	20	70

\* **SERVICE REQUIREMENT**

**None**

EXAMINATION STRUCTURE SHEET NO. 1-25	Endorsement - Tonnage Group- Route- Action-	<b>MASTER UNINSPECTED FISHING VESSEL ANY APPROPRIATE TONNAGE OCEANS OR NEAR COASTAL RENEWAL</b>	EXAM CODE <b>20RE</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
059XX	Rules of the Road: International and Inland	30	90
209XX	Refresher Exercise	30	90

\* **SERVICE REQUIREMENT**

**46CFR 10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

EXAMINATION STRUCTURE SHEET NO. 1-26	Endorsement - Tonnage Group- Route- Action-	<b>MATE UNINSPECTED FISHING VESSEL ANY APPROPRIATE TONNAGE OCEANS AND NEAR COASTAL ORIGINAL</b>	EXAM CODE <b>21DR</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
054XX	Rules of the Road: International and Inland	50	90
181XX	Deck General	70	70
180XX	Navigation General: Near Coastal	70	70
182XX	Navigation General: Oceans	70	70
183XX	Deck Safety and Environmental Protection	70	70
184XX	Navigation Problems: Chart Plot	15	87
185XX	Navigation Problems: Near Coastal	10	90
186XX	Navigation Problems: Oceans	15	80

\* **SERVICE REQUIREMENT**

**46CFR 11.462**

\* **LICENSING NOTES**

See **46CFR11.462** for calculation of Tonnage Limitation

Applicants for Ocean Routes take all of the above modules **EXCEPT** 180XX.

Applicants for Near Coastal routes take all of the above modules **EXCEPT** 182XX and 186XX.



EXAMINATION STRUCTURE SHEET NO. 1-29	Endorsement - Tonnage Group- Route- Action-	<b>CHIEF MATE/MASTER OSV ANY APPROPRIATE TONNAGE OCEANS OR NEAR COASTAL RAISE IN GRADE (from Chief Mate OSV AAT O or NC)</b>	EXAM CODE <b>20BR</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
054XX	Rules of the Road: International and Inland	50	90
201XX	Deck General	50	70
200XX	Navigation General: Near Coastal	50	70
202XX	Navigation General: Oceans	50	70
203XX	Deck Safety and Environmental Protection	50	70
204XX	Navigation Problems: Chart Plot	10	90
205XX	Navigation Problems: Near Coastal	10	90
206XX	Navigation Problems: Oceans	15	80

\* **SERVICE REQUIREMENT for Chief Mate**  
STCW Regulation II/2

**46CFR 11.495**

\* **SERVICE REQUIREMENT for Master**  
STCW Regulation II/2

**46CFR 11.493**

\* **LICENSING NOTES**

Tonnage TBD

Domestic/International TBD

Applicants for Ocean Routes take all of the above modules **EXCEPT** 200XX.

Applicants for Near Coastal routes take all of the above modules **EXCEPT** 202XX and 206XX

EXAMINATION STRUCTURE SHEET NO. 1-30	Endorsement - Tonnage Group- Route- Action-	<b>MASTER or CHIEF MATE OSV ANY APPROPRIATE TONNAGE OCEANS INCREASE IN SCOPE (from NC)</b>	EXAM CODE <b>20DI</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
206XX	Navigation Problems: Oceans	15	80
207XX	Navigation General	20	70

\* **SERVICE REQUIREMENT**

**None**

EXAMINATION STRUCTURE SHEET NO. <b>1-31</b>	Endorsement - <b>MATE OSV</b> Tonnage Group- <b>ANY APPROPRIATE TONNAGE</b> Route- <b>OCEANS OR NEAR COASTAL</b> Action- <b>ORIGINAL</b>	EXAM CODE <b>21DR</b>
MODULES		MINIMUM SCORE
054XX Rules of the Road: International and Inland	50	90
181XX Deck General	70	70
180XX Navigation General: Near Coastal	70	70
182XX Navigation General: Oceans	70	70
183XX Deck Safety and Environmental Protection	70	70
184XX Navigation Problems: Chart Plot	15	87
185XX Navigation Problems: Near Coastal	10	90
186XX Navigation Problems: Oceans	15	80

\* **SERVICE REQUIREMENT**  
STCW Regulation II/2

**46CFR 11.497**

\* **LICENSING NOTES**  
Tonnage TBD  
Domestic/International TBD

Applicants for Ocean Routes take all of the above modules **EXCEPT** 180XX.  
Applicants for Near Coastal routes take all of the above modules **EXCEPT** 182XX and 186XX.

EXAMINATION STRUCTURE SHEET NO. <b>1-32</b>	Endorsement - <b>MATE OSV</b> Tonnage Group- <b>ANY APPROPRIATE TONNAGE</b> Route- <b>OCEANS</b> Action- <b>INCREASE IN SCOPE (from NC)</b>	EXAM CODE <b>21DI</b>
MODULES		MINIMUM SCORE
186XX Navigation Problems: Oceans	15	80
187XX Navigation General	20	70

\* **SERVICE REQUIREMENT**      **None**

EXAMINATION STRUCTURE SHEET NO. 1-33	Endorsement - <b>MATE /CHIEF MATE /MASTER OSV</b> Tonnage Group- <b>ANY APPROPRIATE TONNAGE</b> Route- <b>OCEANS OR NEAR COASTAL</b> Action- <b>RENEWAL</b>	EXAM CODE <b>20RE</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
059XX Rules of the Road: International and Inland		30
209XX Refresher Exercise		30
		<b>MINIMUM SCORE</b>
		90
		90

\* **SERVICE REQUIREMENT**

**46CFR 10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

EXAMINATION STRUCTURE SHEET NO. 1-64	Endorsement - <b>AUXILLIARY SAIL MASTER OR MATE</b> Tonnage Group- <b>ANY APPROPRIATE TONNAGE</b> Route- <b>OCEANS OR NEAR COASTAL</b> Action- <b>ENDORSEMENT</b>	EXAM CODE <b>018A</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
018XX Deck Safety and Rules of the Road		20
		<b>MINIMUM SCORE</b>
		70

\* **SERVICE REQUIREMENT**

Masters/Mates endorsements for service on vessels of more than 200 gross tons **46CFR 11.401(f)**

Master NMT 200GRT Oceans and Near Coastal **46CFR 11.424(b)**

Master NMT 200GRT Near Coastal **46CFR 11.426(b)**

Master NMT 100GRT Near Coastal **46CFR 11.428(b)**

Mate NMT 200GRT Near Coastal **46CFR 11.427(c)**

EXAMINATION STRUCTURE SHEET NO. <b>1-65</b>	Endorsement - Tonnage Group- Route- Action-	<b>ASSISTANCE TOWING MASTER OR MATE 200 GROSS REGISTERED TONS OR LESS OCEANS OR NEAR COASTAL ENDORSEMENT</b>	EXAM CODE <b>017A</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
017XX Deck General		20	70

\* **SERVICE REQUIREMENT**

**46CFR 11.482**

Specific time is not required

\* **LICENSING NOTES**

This is an additional endorsement that can be added to an existing officer endorsement. Assistance Towing endorsements are not independently issued.



## **Chapter 3-Section 2**

### **Great Lakes & Inland or Inland Routes**

## **SECTION TWO: Great Lakes & Inland or Inland Routes**

### **Great Lakes and Inland Routes**

IAW 46CFR10.107 the term Great Lakes means the Great Lakes and their connecting and tributary waters including the Calumet River as far as the Thomas J. O'Brien Lock and Controlling Works (between mile 326 and 327), the Chicago River as far as the east side of the Ashland Avenue Bridge (between mile 321 and 322), and the Saint Lawrence River as far east as the lower exit of Saint Lambert Lock. For purposes of requiring merchant mariner credentials with rating endorsements, the connecting and tributary waters are not part of the Great Lakes.

IAW 46CFR11.430 Any license or MMC endorsement issued for service on the Great Lakes and inland waters is valid on all of the inland waters of the United States as defined in this part.

- Great Lakes waters include Inland waters.
- MMC's endorsed for the Great Lakes read: "Great Lakes and Inland Waters"

### **Inland Routes**

IAW 46CFR10.107 the term Inland means the navigable waters of the United States shoreward of the Boundary Lines as described in part 7 of this chapter, excluding the Great Lakes, and, for towing vessels, excluding the Western Rivers. For establishing credit for sea service, the waters of the Inside Passage between Puget Sound and Cape Spencer, Alaska, are inland waters.

IAW 46CFR11.430 Any license or MMC endorsement issued for service on inland waters is valid for the inland waters of the United States, excluding the Great Lakes. Licenses and MMC endorsements with either a Great Lakes and inland or an inland route are valid for service on the sheltered waters of the Inside Passage between Puget Sound and Cape Spencer, Alaska. As these licenses and MMC endorsements authorize service on waters seaward of the International Regulations for Preventing Collisions at Sea (COLREGS) demarcation line as defined in 33 CFR Part 80, the applicant must complete an examination on the COLREGS or the endorsement must exclude such waters.

- Applicants requesting Great Lakes and Inland or Inland officer endorsements are required to complete a Rules of the Road 066XX module covering Inland Rules of the Road. A geographic COLREGS limitation will be endorsed on the applicants MMD upon successful completion of this module.
- If the applicant wishes to remove the geographic COLREGS limitation they are required to complete a Rules of the Road module, 054XX, covering International and Inland Rules of the Road in lieu of the 066XX module.

## Examination Structure Sheet Index

### Great Lakes and Inland OR Inland License Endorsements

#### ANY GROSS REGISTERED TONS (AGT):

##### **Raise in Grade**

Master AGT Great Lakes and Inland or Inland ESS 2-1

##### **Increase in Scope**

Master AGT Inland to Great Lakes and Inland ESS 2-2

##### **Original**

Mate AGT Great Lakes and Inland ESS 2-3

##### **Renewal**

Master/Mate AGT Great Lakes and Inland ESS 2-4

#### LIMITED TONNAGE NMT 500-1600 GROSS REGISTERED TONS (GRT):

##### **Raise in Grade**

Master NMT 500/1600 GRT Great Lakes and Inland ESS 2-5

##### **Original**

Mate NMT 500/1600 GRT Great Lakes and Inland ESS 2-6

##### **Renewal**

Master/Mate NMT 500/1600 GRT Great Lakes and Inland ESS 2-7

#### LIMITED TONNAGE NMT 200 GROSS REGISTERED TONS (GRT) AND BELOW:

##### **Raise in Grade or Increase in Scope**

Master NMT 200 GRT Great Lakes and Inland or Inland ESS 2-8

##### **Original Issue or Raise in Grade**

Mate NMT 200 GRT Great Lakes and Inland or Inland ESS 2-9

##### **Original Issue**

Master NMT 100 GRT Great Lakes and Inland or Inland ESS 2-10

##### **Increase in Scope**

Mate/Master NMT 200 GRT Inland to Great Lakes and Inland ESS 2-11

Master NMT 100 GRT Inland to Great Lakes and Inland ESS 2-11

##### **Renewal**

Mate/Master NMT 200 GRT Great Lakes and Inland or Inland ESS 2-12

Master NMT 100 GRT Great Lakes and Inland or Inland ESS 2-12

##### **Original Issue**

Operator Uninspected Passenger Vessel Great Lakes and Inland or Inland ESS 2-13

Operator Uninspected Passenger Vessel Restricted ESS 2-16

##### **Increase in Scope**

Operator Uninspected Passenger Vessel Inland to Great Lakes and Inland ESS 2-14

##### **Renewal**

Operator Uninspected Passenger Vessel Great Lakes and Inland or Inland ESS 2-15

#### ADDITIONAL ENDORSEMENTS ANY APPROPRIATE TONNAGE (AAT):

Master or Mate Auxiliary Sail Great Lakes and Inland or Inland ESS 2-17

Master or Mate Assistance Towing Great Lakes and Inland or Inland ESS 2-18

EXAMINATION STRUCTURE SHEET NO. 2-1	Endorsement - Tonnage Group- Route- Action-	<b>MASTER ANY GROSS REGISTERED TONS (AGT) GREAT LAKES AND INLAND OR INLAND RAISE IN GRADE (from MATE AGT GL &amp; I) RAISE IN GRADE (from First Class Pilot)</b>	EXAM CODE <b>23AR</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
066XX Rules of the Road: Inland		30	90
231XX Deck General		70	70
072X1 Navigation General		20	70
235XX Deck Safety and Environmental Protection		50	70
073XX Navigation Problems: Chart Plot		20	90
237XX Great Lakes Topics		25	70

\* **SERVICE REQUIREMENT for Great Lakes & Inland**

**46CFR 11.433**

\* **SERVICE REQUIREMENT for Inland**

**46CFR 11.435**

\* **LICENSING NOTES**

Applicants for Master AGT **Inland** do **NOT** take module 237XX Great Lakes Topics.

Applicants requesting Great Lakes and Inland or Inland officer endorsements are required to complete a Rules of the Road 066XX module covering Inland Rules of the Road. A geographic COLREGS limitation will be endorsed on the applicants MMD upon successful completion of this module. If the applicant wishes to remove the geographic COLREGS limitation they are required to complete a Rules of the Road module, 054XX, covering International and Inland Rules of the Road in lieu of the 066XX module.

EXAMINATION STRUCTURE SHEET NO. 2-2	Endorsement - Tonnage Group- Route- Action-	<b>MASTER ANY GROSS REGISTERED TONS (AGT) GREAT LAKES AND INLAND INCREASE IN SCOPE (from I)</b>	EXAM CODE <b>23AI</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
054XX Rules of the Road: International and Inland		50	90
237XX Great Lakes Topics		25	70

\* **SERVICE REQUIREMENT**

**46CFR 11.433**

\* **LICENSING NOTES**

Applicants take 054XX Rules of the Road: International and Inland if they wish to remove a COLREGS limitation on their endorsement. Otherwise a Rules of the Road module is not required.

EXAMINATION STRUCTURE SHEET NO. 2-3	Endorsement - <b>MATE</b> Tonnage Group- <b>ANY GROSS REGISTERED TONS (AGT)</b> Route- <b>GREAT LAKES AND INLAND</b> Action- <b>ORIGINAL ISSUE</b>	EXAM CODE <b>24AR</b>
MODULES		MINIMUM SCORE
066XX Rules of the Road: Inland	30	90
241XX Deck General	70	70
072X1 Navigation General	20	70
245XX Deck Safety and Environmental Protection	50	70
073XX Navigation Problems: Chart Plot	20	90
247XX Great Lakes Topics	25	70

**\* SERVICE REQUIREMENT**

**46CFR 11.437**

**\* LICENSING NOTES**

Applicants requesting Great Lakes and Inland officer endorsements are required to complete a Rules of the Road 066XX module covering Inland Rules of the Road. A geographic COLREGS limitation will be endorsed on the applicants MMD upon successful completion of this module. If the applicant wishes to remove the geographic COLREGS limitation they are required to complete a Rules of the Road module, 054XX, covering International and Inland Rules of the Road in lieu of the 066XX module.

EXAMINATION STRUCTURE SHEET NO. 2-4	Endorsement - <b>MASTER/MATE</b> Tonnage Group- <b>ANY GROSS REGISTERED TONS (AGT)</b> Route- <b>GREAT LAKES AND INLAND OR INLAND</b> Action- <b>RENEWAL</b>	EXAM CODE <b>23RE</b>
MODULES		MINIMUM SCORE
069XX Rules of the Road: Inland	30	90
249XX Refresher Exercise	40	90

**\* SERVICE REQUIREMENT**

**46CFR 10.227**

**\* LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

Applicants with a COLREGS limitation on their endorsement take module 069XX Rules of the Road: Inland. If they do not have a COLREGS limitation on their endorsement they take module 059XX Rules of the Road: International and Inland.

EXAMINATION STRUCTURE SHEET NO. 2-5	Endorsement - <b>MASTER</b> Tonnage Group- <b>NMT 500/1600 GROSS REGISTERED TONS</b> Route- <b>GREAT LAKES AND INLAND</b> Action- <b>RAISE IN GRADE (From Mate NMT 500/1600 GRT GL &amp; I)</b> <b>RAISE IN GRADE (From Master of Towing Vessels)</b>	EXAM CODE <b>25AR</b>
MODULES		MINIMUM SCORE
066XX Rules of the Road: Inland	30	90
072X1 Navigation General	20	70
251XX Deck General, Deck Safety and Environmental Protection	60	70
073XX Navigation Problems: Chart Plot	20	90
257XX Great Lakes Topics	25	70

\* **SERVICE REQUIREMENT for NMT 500**

**46CFR 11.446**

\* **SERVICE REQUIREMENT for NMT 1600**

**46CFR 11.442**

\* **LICENSING NOTES**

Applicants Raising Grade from Master of Towing Vessels take all modules **EXCEPT** 072X1

Applicants requesting Great Lakes and Inland officer endorsements are required to complete a Rules of the Road 066XX module covering Inland Rules of the Road. A geographic COLREGS limitation will be endorsed on the applicants MMD upon successful completion of this module. If the applicant wishes to remove the geographic COLREGS limitation they are required to complete a Rules of the Road module, 054XX, covering International and Inland Rules of the Road in lieu of the 066XX module.

EXAMINATION STRUCTURE SHEET NO. 2-6	Endorsement - Tonnage Group- Route- Action-	<b>MATE</b> <b>NMT 500/1600 GROSS REGISTERED TONS</b> <b>GREAT LAKES AND INLAND</b> <b>ORIGINAL ISSUE</b>	EXAM CODE <b>26AR</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
066XX	Rules of the Road: Inland	30	90
072X1	Navigation General	20	70
261XX	Deck General, Deck Safety and Environmental Protection	60	70
073XX	Navigation Problems: Chart Plot	20	90
267XX	Great Lakes Topics	25	70

\* **SERVICE REQUIREMENT for NMT 500**

**46CFR 11.448**

\* **SERVICE REQUIREMENT for NMT 1600**

**46CFR 11.444**

\* **LICENSING NOTES**

Applicants requesting Great Lakes and Inland officer endorsements are required to complete a Rules of the Road 066XX module covering Inland Rules of the Road. A geographic COLREGS limitation will be endorsed on the applicants MMD upon successful completion of this module. If the applicant wishes to remove the geographic COLREGS limitation they are required to complete a Rules of the Road module, 054XX, covering International and Inland Rules of the Road in lieu of the 066XX module.

EXAMINATION STRUCTURE SHEET NO. 2-7	Endorsement - Tonnage Group- Route- Action-	<b>MASTER/MATE</b> <b>NMT 500/1600 GROSS REGISTERED TONS</b> <b>GREAT LAKES AND INLAND</b> <b>RENEWAL</b>	EXAM CODE <b>25RE</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
069XX	Rules of the Road: Inland	30	90
259XX	Refresher Exercise	40	90

\* **SERVICE REQUIREMENT**

**46CFR 10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

Applicants with a COLREGS limitation on their endorsement take module 069XX Rules of the Road: Inland. If they do not have a COLREGS limitation on their endorsement they take module 059XX Rules of the Road: International and Inland.

EXAMINATION STRUCTURE SHEET NO. 2-8	Endorsement - <b>MASTER</b> Tonnage Group- <b>NMT 200 GROSS REGISTERED TONS</b> Route- <b>GREAT LAKES AND INLAND OR INLAND</b> Action- <b>ORIGINAL ISSUE</b> <b>RAISE IN GRADE (from Mate NMT 200 GRT GL &amp; I)</b> <b>INCREASE IN SCOPE (from Master NMT 100 GRT GL &amp; I or I)</b>	EXAM CODE <b>27AB</b>
MODULES		MINIMUM SCORE
066XX Rules of the Road: Inland	30	90
011X4 Deck General	20	70
072X1 Navigation General	20	70
271XX Deck Safety and Environmental Protection	60	70
073XX Navigation Problems: Chart Plot	20	90

\* **SERVICE REQUIREMENT for Great Lakes & Inland**

**46CFR 11.452**

\* **SERVICE REQUIREMENT for Inland**

**46CFR 11.452**

\* **LICENSING NOTES**

**46CFR 11.903(b)3**

Applicants Raising Grade from Mate NMT 200 GRT Great lakes and Inland do not require testing if they have the required sea service

Applicants requesting Great Lakes and Inland or Inland officer endorsements are required to complete a Rules of the Road 066XX module covering Inland Rules of the Road. A geographic COLREGS limitation will be endorsed on the applicants MMD upon successful completion of this module. If the applicant wishes to remove the geographic COLREGS limitation they are required to complete a Rules of the Road module, 054XX, covering International and Inland Rules of the Road in lieu of the 066XX module.



EXAMINATION STRUCTURE SHEET NO. 2-9	Endorsement - Tonnage Group- Route- Action-	<b>MATE</b> <b>NMT 200 GROSS REGISTERED TONS</b> <b>GREAT LAKES AND INLAND OR INLAND</b> <b>ORIGINAL ISSUE</b> <b>RAISE IN GRADE (from OUPV GL &amp; I or I)</b>	EXAM CODE <b>27AB</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
066XX	Rules of the Road: Inland	30	90
011X4	Deck General	20	70
072X1	Navigation General	20	70
271XX	Deck Safety and Environmental Protection	60	70
073XX	Navigation Problems: Chart Plot	20	90

\* **SERVICE REQUIREMENT for Great Lakes & Inland**

**46CFR 11.454**

\* **SERVICE REQUIREMENT for Inland**

**46CFR 11.454**

\* **LICENSING NOTES**

Applicants requesting Great Lakes and Inland or Inland officer endorsements are required to complete a Rules of the Road 066XX module covering Inland Rules of the Road. A geographic COLREGS limitation will be endorsed on the applicants MMD upon successful completion of this module. If the applicant wishes to remove the geographic COLREGS limitation they are required to complete a Rules of the Road module, 054XX, covering International and Inland Rules of the Road in lieu of the 066XX module.

When Raising Grade **from** Operator Uninspected Passenger Vessels Great Lakes and Inland or Inland **ONLY** the following modules are required:

MODULES	NUMBER OF QUESTIONS	MINIMUM SCORE
011X2 Deck General	10	70

EXAMINATION STRUCTURE SHEET NO. 2-10	Endorsement - Tonnage Group- Route- Action-	<b>MASTER NMT 100 GROSS REGISTERED TONS GREAT LAKES AND INLAND OR INLAND ORIGINAL ISSUE</b>	EXAM CODE <b>27CA</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
066XX Rules of the Road: Inland		30	90
072X1 Navigation General		20	70
271XX Deck General, Deck Safety and Environmental Protection		60	70
077XX Navigation Problems: Chart Plot		10	70

\* **SERVICE REQUIREMENT for Great Lakes and Inland** **46CFR 11.455**

\* **SERVICE REQUIREMENT for Inland** **46CFR 11.457**

\* **LICENSING NOTES**

Applicants requesting Great Lakes and Inland or Inland officer endorsements are required to complete a Rules of the Road 066XX module covering Inland Rules of the Road. A geographic COLREGS limitation will be endorsed on the applicants MMD upon successful completion of this module. If the applicant wishes to remove the geographic COLREGS limitation they are required to complete a Rules of the Road module, 054XX, covering International and Inland Rules of the Road in lieu of the 066XX module.

EXAMINATION STRUCTURE SHEET NO. 2-11	Endorsement - Tonnage Group- Route- Action-	<b>MATE /MASTER NMT 200 GROSS REGISTERED TONS MASTER 100 GROSS REGISTERED TONS GREAT LAKES AND INLAND INCREASE IN SCOPE (from Inland)</b>	EXAM CODE <b>27AD</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
054XX Rules of the Road: International and Inland		50	90
221XX Deck General, Deck Safety and Environmental Protection		70	70

\* **SERVICE REQUIREMENT**

**Master NMT 200 GRT** **46CFR 11.452**

**Mate NMT 200 GRT** **46CFR 11.454**

**Master 100 NMT GRT** **46CFR 11.455**

\* **LICENSING NOTES**

Applicants take 054XX Rules of the Road: International and Inland if they wish to remove a COLREGS limitation on their endorsement. Otherwise a Rules of the Road module is not required.

EXAMINATION STRUCTURE SHEET NO. 2-12	Endorsement - <b>MATE /MASTER NMT 200 GROSS REGISTERED TONS</b> Tonnage Group- <b>MASTER NMT 100 GROSS REGISTERED TONS</b> Route- <b>GREAT LAKES AND INLAND OR INLAND</b> Action- <b>RENEWAL</b>	EXAM CODE <b>27RE</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
069XX Rules of the Road: Inland		30
279XX Refresher Exercise		20
		<b>MINIMUM SCORE</b>
		90
		90

\* **SERVICE REQUIREMENT**

**46CFR 10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

Applicants with a COLREGS limitation on their endorsement take module 069XX Rules of the Road: Inland. If they do not have a COLREGS limitation on their endorsement they take module 059XX Rules of the Road: International and Inland.

EXAMINATION STRUCTURE SHEET NO. 2-13	Endorsement - <b>OPERATOR</b> Tonnage Group- <b>UNINSPECTED PASSENGER VESSEL</b> Route- <b>GREAT LAKES AND INLAND OR INLAND</b> Action- <b>ORIGINAL ISSUE</b>	EXAM CODE <b>39AB</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
066XX Rules of the Road: Inland		50
072X1 Navigation General		20
391XX Deck Safety and Environmental Protection		60
077XX Navigation Problems: Chart Plot		10
		<b>MINIMUM SCORE</b>
		90
		70
		70
		70

\* **SERVICE REQUIREMENT for Great lakes & Inland**

**46CFR 11.467**

\* **SERVICE REQUIREMENT for Inland**

**46CFR 11.467**

Applicants requesting Great Lakes and Inland or Inland officer endorsements are required to complete a Rules of the Road 066XX module covering Inland Rules of the Road. A geographic COLREGS limitation will be endorsed on the applicants MMD upon successful completion of this module. If the applicant wishes to remove the geographic COLREGS limitation they are required to complete a Rules of the Road module, 054XX, covering International and Inland Rules of the Road in lieu of the 066XX module.

EXAMINATION STRUCTURE SHEET NO. 2-14	Endorsement - Tonnage Group- Route- Action-	<b>OPERATOR UNINSPECTED PASSENGER VESSEL GREAT LAKES AND INLAND INCREASE IN SCOPE (from I)</b>	EXAM CODE <b>39AD</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
054XX Rules of the Road: International and Inland		50	90

\* **SERVICE REQUIREMENT**

**46CFR 11.467**

\* **LICENSING NOTES**

No testing is required unless the applicant requests to take 054XX Rules of the Road: International and Inland to remove a COLREGS limitation on their endorsement.

EXAMINATION STRUCTURE SHEET NO. 2-15	Endorsement - Tonnage Group- Route- Action-	<b>OPERATOR UNINSPECTED PASSENGER VESSEL GREAT LAKES AND INLAND OR INLAND RENEWAL</b>	EXAM CODE <b>39RE</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
069XX Rules of the Road: Inland		30	90
399XX Refresher Exercise		20	90

\* **SERVICE REQUIREMENT**

**46CFR 10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

Applicants with a COLREGS limitation on their endorsement take module 069XX Rules of the Road: Inland. If they do not have a COLREGS limitation on their endorsement they take module 059XX Rules of the Road: International and Inland.

EXAMINATION STRUCTURE SHEET NO. 2-16	Endorsement - Tonnage Group- Route- Action-	<b>OPERATOR UNINSPECTED PASSENGER VESSEL RESTRICTED ORIGINAL</b>	EXAM CODE <b>39AE</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
055XX Rules of the Road:		30	80
071XX Navigation General		10	70
390XX Deck General, Safety & Environmental Protection		40	70

\* **LICENSING NOTES**

See NMC Policy letter 03-10 for additional information



EXAMINATION STRUCTURE SHEET NO. 2-17	Endorsement - Tonnage Group- Route- Action-	<b>AUXILLIARY SAIL MASTER OR MATE ANY APPROPRIATE TONNAGE GREAT LAKES AND INLAND OR INLAND ENDORSEMENT</b>	EXAM CODE <b>018A</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
018XX Deck Safety and Rules of the Road		20	70

**\* SERVICE REQUIREMENT**

Masters and Mates with endorsements for vessels 200 GRT and under as follows:

Master NMT 200GRT Great Lakes and Inland or Inland **46CFR 11.452(b)**

Master NMT 100GRT Great Lakes and Inland **46CFR 11.455(b)**

Master NMT 100GRT Inland **46CFR 11.457(b)**

Mate NMT 200GRT Great Lakes and Inland **46CFR 11.454(b)**

EXAMINATION STRUCTURE SHEET NO. 2-18	Endorsement - Tonnage Group- Route- Action-	<b>ASSISTANCE TOWING MASTER OR MATE 200 GROSS REGISTERED TONS OR LESS GREAT LAKES AND INLAND OR INLAND ENDORSEMENT</b>	EXAM CODE <b>017A</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
017XX Deck General		20	70

**\* SERVICE REQUIREMENT**

**46CFR 11.482**

Specific time is not required

**\* LICENSING NOTES**

This is an additional endorsement that can be added to an existing officer endorsement. Assistance Towing endorsements are not independently issued.

## **Chapter 3-Section 3**

### **River Routes**

## **SECTION THREE: River Routes**

### **River Routes**

IAW 46CFR10.107 the term RIVERS means a river, canal, or other similar body of water designated as such by the Coast Guard.

### **Western Rivers Routes**

IAW 46CFR10.107 the term Western Rivers means the Mississippi River, its tributaries, South Pass, and Southwest Pass, to the navigational demarcation lines dividing the high seas from harbors, rivers, and other inland waters of the United States, and the Port Allen-Morgan City Alternate Route, and that part of the Atchafalaya River above its junction with the Port Allen-Morgan City Alternate Route including the Old River and the Red River, and those waters specified in 33 CFR 89.25.

From the COMDTINST M16000.8B

Marine Safety Manual Volume Three

Page 10-6/7

#### **F. River Licenses.**

The 46 CFR Part 10 final rule on licensing of maritime personnel created several river licenses. This section supplements the basic structure which the regulations contain on these licenses.

##### **1. Routes.**

River licenses can be issued with three route designations; Western Rivers, Rivers other than Western Rivers, and Rivers.

##### **2. License Examinations.**

There are three different examinations for rivers licenses; 1) Master's license authorizing service on vessels of more than 200 gross tons, including 500, 1600, and any gross tons; 2) Mate's license authorizing service on vessels of more than 200 gross tons, and; 3) Master or Mate on vessels of not more than 200 gross tons. Tonnage should be determined using the qualifying service.

a. All three examinations will utilize the 30 question Rules of the Road module. Because Alaskan and other rivers are governed by the COLREGS, applicants for a Rivers route or a Rivers other than a Western Rivers route who are examined with the Inland Rules of the Road module will have the standard COLREGS exclusion placed on their license.

b. Master and Mate examinations will each have a General module appropriate for the level. All other modules utilized will be existing or new generic modules.

c. Routes will be determined by which generic navigation modules are taken. Applicants for a Western Rivers route will take the Western Rivers navigation problems module. Applicants for a Rivers other than Western Rivers route will take the navigation problems module based on the Columbia River which is similar in scope to the Western Rivers module. Applicants for a Rivers route will be required to take both navigation modules.



## **Examination Structure Sheet Index**

### **River License Endorsements**

#### **ANY APPROPRIATE TONNAGE**

#### **NOT LESS THAN 200 GROSS REGISTERED TONS (GRT):**

##### **Original Issue**

Master AGT or NMT 500 or NMT 1600 GRT Rivers ESS 3-1

Mate NMT 500 or NMT 1600 GRT River ESS 3-2

##### **Renewal**

Master AGT or Master/Mate AGT or NMT 500 or NMT 1600 GRT Rivers ESS 3-3

#### **LIMITED TONNAGE NMT 200 GROSS REGISTERED TONS (GRT) AND BELOW:**

##### **Original Issue or Raise in Grade**

Master/Mate NMT 200 GRT Rivers ESS 3-4

##### **Renewal**

Master/Mate NMT 200 GRT Rivers ESS 3-5

#### **ADDITIONAL ENDORSEMENTS ANY APPROPRIATE TONNAGE (AAT):**

Master/Mate Auxiliary Sail Rivers ESS 3-6

Master/Mate Assistance Towing Rivers ESS 3-7

EXAMINATION STRUCTURE SHEET NO. 3-1	Endorsement - Tonnage Group- Route- Action-	<b>MASTER AGT OR NMT500/1600 GRT RIVERS ORIGINAL ISSUE</b>	EXAM CODE <b>30BB</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
066XX	Rules of the Road: Inland	30	90
301XX	Deck General, Deck Safety and Environmental Protection	70	70
072X3	Navigation General	15	70
074XX	Navigation Problems: Chart Plot	10	90
072X4	Navigation General	15	70
075XX	Navigation Problems: Chart Plot	10	90

\* **SERVICE REQUIREMENT for AGT**

**46CFR 11.435/46CFR 11.459**

\* **SERVICE REQUIREMENT for NMT 1600 GRT**

**46CFR 11.442/46CFR 11.459**

\* **SERVICE REQUIREMENT for NMT 500 GRT**

**46CFR 11.446/46CFR 11.459**

\* **LICENSING NOTES**

River Routes take all the above modules

River Routes Restricted to Rivers other Than Western Rivers Do NOT take 072X4 or 075XX

River Routes Restricted to Western Rivers Do NOT take 072X3 or 074XX

EXAMINATION STRUCTURE SHEET NO. 3-2	Endorsement - Tonnage Group- Route- Action-	<b>MATE NMT 500/1600 GRT RIVERS ORIGINAL ISSUE</b>	EXAM CODE <b>31BB</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
066XX	Rules of the Road: Inland	30	90
311XX	Deck General, Deck Safety and Environmental Protection	60	70
072X3	Navigation General	15	70
074XX	Navigation Problems: Chart Plot	10	90
072X4	Navigation General	15	70
075XX	Navigation Problems: Chart Plot	10	90

\* **SERVICE REQUIREMENT for NMT 500 GRT**

**46CFR 11.448/46CFR 11.459**

\* **SERVICE REQUIREMENT for NMT 1600 GRT**

**46CFR 11.444/46CFR 11.459**

\* **LICENSING NOTES**

River Routes take all the above modules

River Routes Restricted to Rivers other Than Western Rivers Do NOT take 072X4 or 075XX

River Routes Restricted to Western Rivers Do NOT take 072X3 or 074XX

EXAMINATION STRUCTURE SHEET NO. 3-3	Endorsement - Tonnage Group- Route- Action-	<b>MASTER OR MATE ANY APPROPRIATE TONNAGE RIVERS RENEWAL</b>	EXAM CODE <b>30RE</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
069XX	Rules of the Road: Inland	30	90
309XX	Refresher Exercise	30	90

\* **SERVICE REQUIREMENT**

**46CFR 10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

EXAMINATION STRUCTURE SHEET NO. 3-4	Endorsement - Tonnage Group- Route- Action-	<b>MASTER OR MATE NMT 200 GROSS REGISTERED TONS RIVERS ORIGINAL ISSUE OR RAISE IN GRADE (from Mate 200 GRT Rivers)</b>	EXAM CODE <b>32AB</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
066XX Rules of the Road: Inland		30	90
321XX Deck General, Deck Safety and Environmental Protection		70	70
072X3 Navigation General		15	70
074XX Navigation Problems: Chart Plot		10	90
072X4 Navigation General		15	70
075XX Navigation Problems: Chart Plot		10	90

\* **SERVICE REQUIREMENT for MASTER**

**46CFR 11.452/46CFR 11.459**

\* **SERVICE REQUIREMENT for MATE**

**46CFR 11.454/46CFR 11.459**

\* **LICENSING NOTES**

**46CFR 11.903(b)3**

Applicants raising the grade of their license from Mate 200 GRT on the same route may do so by presenting the required sea service, no examination is required

River Routes take all the above modules

River Routes Restricted to Rivers other Than Western Rivers Do NOT take 072X4 or 075XX

River Routes Restricted to Western Rivers Do NOT take 072X3 or 074XX

EXAMINATION STRUCTURE SHEET NO. 3-5	Endorsement - Tonnage Group- Route- Action-	<b>MASTER OR MATE NMT 200 GROSS REGISTERED TONS RIVERS RENEWAL</b>	EXAM CODE <b>32RE</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
069XX Rules of the Road: Inland		30	90
329XX Refresher Exercise		30	90

\* **SERVICE REQUIREMENT**

**46CFR 10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

EXAMINATION STRUCTURE SHEET NO. 3-6	Endorsement - Tonnage Group- Route- Action-	<b>AUXILLIARY SAIL MASTER OR MATE ANY APPROPRIATE TONNAGE RIVERS ENDORSEMENT</b>	EXAM CODE <b>018A</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
018XX Deck Safety and Rules of the Road		20	70

**\* SERVICE REQUIREMENT**

Masters and Mates with endorsements for vessels 200 GRT and under as follows:

Master NMT 200GRT

**46CFR 11.452(b)**

Mate NMT 200GRT

**46CFR 11.454(b)**

EXAMINATION STRUCTURE SHEET NO. 3-7	Endorsement - Tonnage Group- Route- Action-	<b>ASSISTANCE TOWING MASTER OR MATE 200 GROSS REGISTERED TONS OR LESS ANY ENDORSEMENT</b>	EXAM CODE <b>017A</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
017XX Deck General		20	70

**\* SERVICE REQUIREMENT**

**46CFR 11.482**

Specific time is not required

**\* LICENSING NOTES**

This is an additional endorsement that can be added to an existing officer endorsement. Assistance Towing endorsements are not independently issued.

# **Chapter 3-Section 4**

## **First Class Pilot**

**SECTION FOUR:**

**First Class Pilot**

**Examination Structure Sheet Index**

**First Class Pilot Endorsements**

**ANY APPROPRIATE TONNAGE:**

**Original Issue**

First Class Pilot

ESS 4-1

**Renewal**

First Class Pilot

ESS 4-2

EXAMINATION STRUCTURE SHEET NO. 4-1	Endorsement - Tonnage Group- Route- Action-	<b>FIRST CLASS PILOT NMT 1600 GROSS REGISTERED TONS ANY APPROPRIATE WATERS ORIGINAL ISSUE</b>	EXAM CODE <b>31AA</b>
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
0XXXX	Rules of the Road:	30/50	90
032XX	Navigation General	20	70
031XX	Deck General, Deck Safety and Environmental Protection	60	70
073XX	Navigation Problems: Chart Plot	10	70
LK	Local Knowledge	TBD	TBD
CS	Chart Sketch	TBD	TBD

**\* SERVICE REQUIREMENT**

**46CFR 11.703**

Is predicated upon the nature of the waters for which pilotage is desired

**\* LICENSING NOTES**

**46CFR11.703 Route Familiarization Requirements**

**46CFR11.707 Examination Requirements**

Rules of the Road:

Module 054XX is administered for routes requiring International & Inland Rules of the Road

Module 066XX is administered for routes requiring Inland Rules of the Road

Applicants requesting original officer endorsement as First Class Pilot on vessels NMT 1600 GRT **MUST** take all the modules listed above

Applicants requesting an extension of route or holding an MMC endorsement as Master or Mate authorized to serve on vessels of over 1600 GRT are **ONLY** required to take the Local Knowledge and Chart Sketch modules for the requested route.

Chart Plot for Applicants requesting Rivers Routes :

Module 074XX and 075XX are administered for River Routes

Module 074XX is administered for Rivers other Than Western Rivers

Module 075XX is administered for Western Rivers

Local Knowledge and Chart Sketch Modules: Will be maintained and administered by the Regional Exam Center in the local area. Questions, passing scores, reference materials and time limits are all established locally at the REC. Applicants should contact the REC for examination requirements for specific routes. REC's will keep completed Chart Sketches in Mariner files.

**46CFR 11.711 Tonnage Requirements**

**46CFR 11.713 Recency Requirements**



EXAMINATION STRUCTURE SHEET NO. 4-2	Endorsement - <b>FIRST CLASS PILOT</b> Tonnage Group- <b>ANY APPROPRIATE TONNAGE</b> Route- <b>ANY APPROPRIATE WATERS</b> Action- <b>RENEWAL</b>	EXAM CODE <b>31RR</b>	
MODULES		NUMBER OF QUESTIONS	MINIMUM SCORE
0X9XX Rules of the Road:		30	90
039XX Refresher Exercise		30	90

\* **SERVICE REQUIREMENT**

**46CFR 10.227**

Exams are required only if applicant does not have the required sea service for renewal or does not have closely related shore side experience or has not taken an approved refresher course.

\* **LICENSING NOTES**

Rules of the Road: Module 059XX is administered for routes requiring International & Inland Rules of the Road, Module 069XX is administered for routes requiring Inland Rules of the Road.

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

## **Chapter 3-Section 5**

### **Uninspected Towing Vessels**

## **SECTION FIVE: Uninspected Towing Vessels**

### **TOWING VESSELS (TV) ANY APPROPRIATE TONNAGE (AAT):**

#### **Raise in Grade**

Master TV Oceans	ESS 5-1
Master TV Near Coastal	ESS 5-2
Master TV Great Lakes and Inland	ESS 5-3
Master TV Western Rivers	ESS 5-4

#### **Raise in Grade**

Mate Pilot TV Oceans	ESS 5-5
Mate Pilot TV Near Coastal	ESS 5-6
Mate Pilot TV Great Lakes and Inland	ESS 5-7
Mate Pilot TV Western Rivers	ESS 5-8

#### **Original Issue**

Apprentice Mate Steersman TV Oceans	ESS 5-9
Apprentice Mate Steersman TV Near Coastal	ESS 5-10
Apprentice Mate Steersman TV Great Lakes and Inland	ESS 5-11
Apprentice Mate Steersman TV Western Rivers	ESS 5-12

#### **Increase in Scope**

AMS/Mate Pilot/Master TV Oceans	ESS 5-13
AMS/Mate Pilot/Master TV Near Coastal	ESS 5-14
AMS/Mate Pilot/Master TV Great Lakes and Inland	ESS 5-15
AMS/Mate Pilot/Master TV Western Rivers	ESS 5-16

#### **Renewal**

AMS/Mate Pilot/Master TV Oceans and Near Coastal	ESS 5-17
AMS/Mate Pilot/Master TV Great Lakes and Inland	ESS 5-18
AMS/Mate Pilot/Master TV Western Rivers	ESS 5-19

EXAMINATION STRUCTURE SHEET NO. 5-1	Endorsement - Tonnage Group- Route- Action-	<b>MASTER TOWING VESSEL ANY APPROPRIATE TONNAGE OCEANS RAISE IN GRADE (from Mate Pilot TV O)</b>	EXAM CODE <b>34MR</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
No testing required			

\* **SERVICE REQUIREMENT**

**46CFR 11.464**

EXAMINATION STRUCTURE SHEET NO. 5-2	Endorsement - Tonnage Group- Route- Action-	<b>MASTER TOWING VESSEL ANY APPROPRIATE TONNAGE NEAR COASTAL RAISE IN GRADE (from Mate Pilot TV NC)</b>	EXAM CODE <b>34MS</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
No testing required			

\* **SERVICE REQUIREMENT**

**46CFR 11.464**

\* **LICENSING NOTES**

In order to gain endorsement on a superior route as Master of Towing Vessels, applicants must pass the exam for the desired route in order to have their MMC endorsed as Mate Pilot on that route. Upon completing ninety days of service and a Towing Officer Assessment Record for the route, the endorsement will be raised in grade to Master of Towing Vessels for that route.

EXAMINATION STRUCTURE SHEET NO. 5-3	Endorsement - Tonnage Group- Route- Action-	<b>MASTER TOWING VESSEL ANY APPROPRIATE TONNAGE GREAT LAKES AND INLAND RAISE IN GRADE (from Mate Pilot TV GL &amp; I)</b>	EXAM CODE <b>35MR</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
No testing required			

\* **SERVICE REQUIREMENT**

**46CFR 11.464**

\* **LICENSING NOTES**

In order to gain endorsement on a superior route as Master of Towing Vessels, applicants must pass the exam for the desired route in order to have their MMC endorsed as Mate Pilot on that route. Upon completing ninety days of service and a Towing Officer Assessment Record for the route, the endorsement will be raised in grade to Master of Towing Vessels for that route.

EXAMINATION STRUCTURE SHEET NO. 5-4	Endorsement - Tonnage Group- Route- Action-	<b>MASTER TOWING VESSEL</b> <b>ANY APPROPRIATE TONNAGE</b> <b>WESTERN RIVERS</b> <b>RAISE IN GRADE (from Mate Pilot TV WR)</b>	EXAM CODE <b>36MR</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
No testing required			

\* **SERVICE REQUIREMENT**

**46CFR 11.464**

\* **LICENSING NOTES**

In order to gain endorsement on a superior route as Master of Towing Vessels, applicants must pass the exam for the desired route in order to have their MMC endorsed as Mate Pilot on that route. Upon completing ninety days of service and a Towing Officer Assessment Record for the route, the endorsement will be raised in grade to Master of Towing Vessels for that route.

EXAMINATION STRUCTURE SHEET NO. 5-5	Endorsement - Tonnage Group- Route- Action-	<b>MATE PILOT TOWING VESSEL</b> <b>ANY APPROPRIATE TONNAGE</b> <b>OCEANS</b> <b>RAISE IN GRADE (from Apprentice Mate O)</b>	EXAM CODE <b>34MP</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
No testing required			

\* **SERVICE REQUIREMENT**

**46CFR 11.465**

\* **LICENSING NOTES**

An applicant who holds an endorsement as Master of Towing Vessels for Local Limited Areas must complete a full TOAR for the route requested and successfully completes the following exam modules:

<b>MODULES</b>	<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
054XX Rules of the Road: International and Inland	50	90
072X1 Navigation General	20	70
341XX Deck General, Deck Safety and Environmental Protection	60	70
073XX Navigation Problems: Chart Plot	10	70
078XX Navigation Problems: Oceans	5	80

EXAMINATION STRUCTURE SHEET NO. 5-6	Endorsement - Tonnage Group- Route- Action-	<b>MATE PILOT TOWING VESSEL ANY APPROPRIATE TONNAGE NEAR COASTAL RAISE IN GRADE (from Apprentice Mate NC)</b>	EXAM CODE <b>34MA</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
No testing required			

\* **SERVICE REQUIREMENT**

**46CFR 11.465**

\* **LICENSING NOTES**

An applicant who holds an endorsement as Master of Towing Vessels for Local Limited Areas must complete a full TOAR for the route requested and successfully completes the following exam modules:

<b>MODULES</b>	<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
054XX Rules of the Road: International and Inland	50	90
072X1 Navigation General	20	70
341XX Deck General, Deck Safety and Environmental Protection	60	70
073XX Navigation Problems: Chart Plot	10	70

EXAMINATION STRUCTURE SHEET NO. 5-7	Endorsement - Tonnage Group- Route- Action-	<b>MATE PILOT TOWING VESSEL ANY APPROPRIATE TONNAGE GREAT LAKES AND INLAND RAISE IN GRADE (from Apprentice Mate GL &amp; I)</b>	EXAM CODE <b>35MP</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
No testing required			

\* **SERVICE REQUIREMENT**

**46CFR 11.465**

\* **LICENSING NOTES**

An applicant who holds an endorsement as Master of Towing Vessels for Local Limited Areas must complete a full TOAR for the route requested and successfully completes the following exam modules:

<b>MODULES</b>	<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
066XX Rules of the Road: Inland	30	90
072X1 Navigation General	20	70
351XX Deck General, Deck Safety and Environmental Protection	60	70
073XX Navigation Problems: Chart Plot	10	70

Applicants requesting Great Lakes and Inland officer endorsements are required to complete a Rules of the Road 066XX module covering Inland Rules of the Road. A geographic COLREGS limitation will be endorsed on the applicants MMD upon successful completion of this module. If the applicant wishes to remove the geographic COLREGS limitation they are required to complete a Rules of the Road module, 054XX, covering International and Inland Rules of the Road in lieu of the 066XX module.

EXAMINATION STRUCTURE SHEET NO. 5-8	Endorsement - Tonnage Group- Route- Action-	<b>MATE PILOT TOWING VESSEL ANY APPROPRIATE TONNAGE WESTERN RIVERS RAISE IN GRADE (from Apprentice Mate WR)</b>	EXAM CODE
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
No testing required			

\* **SERVICE REQUIREMENT**

**46CFR 11.465**

\* **LICENSING NOTES**

An applicant who holds an endorsement as Master of Towing Vessels for Local Limited Areas must complete a full TOAR for the route requested and successfully completes the following exam modules:

<b>MODULES</b>	<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
066XX Rules of the Road: International and Inland	30	90
072X1 Navigation General	20	70
351XX Deck General, Deck Safety and Environmental Protection	60	70
073XX Navigation Problems: Chart Plot	10	70

EXAMINATION STRUCTURE SHEET NO. 5-9	Endorsement - Tonnage Group- Route- Action-	<b>APPRENTICE MATE STEERSMAN ANY APPROPRIATE TONNAGE OCEANS ORIGINAL ISSUE</b>	EXAM CODE <b>34AA</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
054XX Rules of the Road: International and Inland		50	90
072X1 Navigation General		20	70
341XX Deck General, Deck Safety and Environmental Protection		60	70
073XX Navigation Problems: Chart Plot		10	70
078XX Navigation Problems: Oceans		5	80

\* **SERVICE REQUIREMENT**

**46CFR 11.466**

EXAMINATION STRUCTURE SHEET NO. 5-10	Endorsement - Tonnage Group- Route- Action-	<b>APPRENTICE MATE STEERSMAN ANY APPROPRIATE TONNAGE NEAR COASTAL ORIGINAL ISSUE</b>	EXAM CODE <b>34AA</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
054XX	Rules of the Road: International and Inland	50	90
072X1	Navigation General	20	70
341XX	Deck General, Deck Safety and Environmental Protection	60	70
073XX	Navigation Problems: Chart Plot	10	70

**\* SERVICE REQUIREMENT**

**46CFR 11.466**

EXAMINATION STRUCTURE SHEET NO. 5-11	Endorsement - Tonnage Group- Route- Action-	<b>APPRENTICE MATE STEERSMAN ANY APPROPRIATE TONNAGE GREAT LAKES AND INLAND ORIGINAL ISSUE</b>	EXAM CODE <b>35AA</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
066XX	Rules of the Road: Inland	30	90
072X1	Navigation General	20	70
351XX	Deck General, Deck Safety and Environmental Protection	60	70
073XX	Navigation Problems: Chart Plot	10	70

**\* SERVICE REQUIREMENT**

**46CFR 11.466**

**\* LICENSING NOTES**

Applicants requesting Great Lakes and Inland officer endorsements are required to complete a Rules of the Road 066XX module covering Inland Rules of the Road. A geographic COLREGS limitation will be endorsed on the applicants MMD upon successful completion of this module. If the applicant wishes to remove the geographic COLREGS limitation they are required to complete a Rules of the Road module, 054XX, covering International and Inland Rules of the Road in lieu of the 066XX module.

EXAMINATION STRUCTURE SHEET NO. 5-12	Endorsement - Tonnage Group- Route- Action-	<b>APPRENTICE MATE STEERSMAN ANY APPROPRIATE TONNAGE WESTERN RIVERS ORIGINAL ISSUE</b>	EXAM CODE <b>36AA</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
066XX	Rules of the Road: Inland	30	90
072X4	Navigation General	20	70
361XX	Deck General, Deck Safety and Environmental Protection	60	70
075XX	Navigation Problems: Chart Plot	10	70

**\* SERVICE REQUIREMENT**

**46CFR 11.466**



EXAMINATION STRUCTURE SHEET NO. 5-13	Endorsement - Tonnage Group- Route- Action-	<b>MASTER/MATE PILOT/AMS TOWING VESSELS ANY APPROPRIATE TONNAGE OCEANS INCREASE IN SCOPE (from NC)</b>	EXAM CODE <b>34IO</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
078XX Navigation Problems: Oceans		5	80

**\* SERVICE REQUIREMENT for Master & Mate Pilot**

**46CFR 11.465**

90 Days of service on the route desired

Successful completion of any sections of the (TOAR) Towing Officer Assessment Record not previously completed.

**\* SERVICE REQUIREMENT for AMS**

**46CFR 11.466**

After passing the above prescribed modules a restricted endorsement as Limited Apprentice Mate Steersman will be placed on your MMC. The restriction can be removed after obtaining Three Months of service on the route.

EXAMINATION STRUCTURE SHEET NO. 5-14	Endorsement - Tonnage Group- Route- Action-	<b>MASTER/MATE PILOT/AMS TOWING VESSELS ANY APPROPRIATE TONNAGE NEAR COASTAL INCREASE IN SCOPE (from GL &amp; I)</b>	EXAM CODE <b>34IN</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
066XX Rules of the Road: Inland		30	90
341XX Deck General, Deck Safety and Environmental Protection		60	70

**\* SERVICE REQUIREMENT for Master & Mate Pilot**

**46CFR 11.465**

90 Days of service on the route desired

Successful completion of any sections of the (TOAR) Towing Officer Assessment Record not previously completed.

**\* SERVICE REQUIREMENT for AMS**

**46CFR 11.466**

After passing the above prescribed modules a restricted endorsement as Limited Apprentice Mate Steersman will be placed on your MMC. The restriction can be removed after obtaining Three Months of service on the route.

EXAMINATION STRUCTURE SHEET NO. <b>5-15</b>	Endorsement - <b>MASTER/MATE PILOT/AMS TOWING VESSELS</b> Tonnage Group- <b>ANY APPROPRIATE TONNAGE</b> Route- <b>GREAT LAKES AND INLAND</b> Action- <b>INCREASE IN SCOPE (from WR)</b>	EXAM CODE
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
072X1 Navigation General		20
073XX Navigation Problems: Chart Plot		10
		<b>MINIMUM SCORE</b>
		70
		70

\* **SERVICE REQUIREMENT for Master & Mate Pilot**

**46CFR 11.465**

90 Days of service on the route desired

Successful completion of any sections of the (TOAR) Towing Officer Assessment Record not previously completed.

\* **SERVICE REQUIREMENT for AMS**

**46CFR 11.466**

After passing the above prescribed modules a restricted endorsement as Limited Apprentice Mate Steersman will be placed on your MMC. The restriction can be removed after obtaining Three Months of service on the route.

\* **LICENSING NOTES**

Applicants requesting Great Lakes and Inland officer endorsements are required to complete a Rules of the Road 066XX module covering Inland Rules of the Road. A geographic COLREGS limitation will be endorsed on the applicants MMD upon successful completion of this module. If the applicant wishes to remove the geographic COLREGS limitation they are required to complete a Rules of the Road module, 054XX, covering International and Inland Rules of the Road in lieu of the 066XX module.

EXAMINATION STRUCTURE SHEET NO. <b>5-16</b>	Endorsement - <b>MASTER/MATE PILOT/AMS TOWING VESSELS</b> Tonnage Group- <b>ANY APPROPRIATE TONNAGE</b> Route- <b>WESTERN RIVERS</b> Action- <b>INCREASE IN SCOPE (add Endorsement)</b>	EXAM CODE
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
072X4 Navigation General		20
075XX Navigation Problems: Chart Plot		10
		<b>MINIMUM SCORE</b>
		70
		70

EXAMINATION STRUCTURE SHEET NO. 5-17	Endorsement - <b>MASTER/MATE PILOT/AMS TOWING VESSELS</b> Tonnage Group- <b>ANY APPROPRIATE TONNAGE</b> Route- <b>OCEANS AND NEAR COASTAL</b> Action- <b>RENEWAL</b>	EXAM CODE <b>34RE</b>
MODULES		NUMBER OF QUESTIONS
059XX Rules of the Road: International and Inland		30
349XX Refresher Exercise		30
		MINIMUM SCORE
		90
		90

\* **SERVICE REQUIREMENT**

**46CFR 10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

EXAMINATION STRUCTURE SHEET NO. 5-18	Endorsement - <b>MASTER/MATE PILOT/AMS TOWING VESSELS</b> Tonnage Group- <b>ANY APPROPRIATE TONNAGE</b> Route- <b>GREAT LAKES AND INLAND</b> Action- <b>RENEWAL</b>	EXAM CODE <b>35RE</b>
MODULES		NUMBER OF QUESTIONS
069XX Rules of the Road: Inland		30
359XX Refresher Exercise		20
		MINIMUM SCORE
		90
		90

\* **SERVICE REQUIREMENT**

**46CFR 10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

Applicants with a COLREGS limitation on their endorsement take module 069XX Rules of the Road: Inland. If they do not have a COLREGS limitation on their endorsement they take module 059XX Rules of the Road: International and Inland.

EXAMINATION STRUCTURE SHEET NO. <b>5-19</b>	Endorsement - <b>MASTER/MATE PILOT/AMS TOWING VESSELS</b> Tonnage Group- <b>ANY APPROPRIATE TONNAGE</b> Route- <b>WESTERN RIVERS</b> Action- <b>RENEWAL</b>	EXAM CODE <b>36RE</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
069XX Rules of the Road: Inland		30
369XX Refresher Exercise		30
		<b>MINIMUM SCORE</b>
		90
		90

\* **SERVICE REQUIREMENT**

**46CFR 10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers.  
Completed exams must be returned to the Regional Exam Center for grading within thirty days.

## **Chapter 3-Section 6**

### **Mobile Offshore Drilling Units**

## **SECTION SIX:**

## **Mobile Offshore Drilling Units**

### **MODU**

IAW 46CFR10.107 the term **Mobile Offshore Drilling Unit (MODU)** means a vessel capable of engaging in drilling operations for the exploration for or exploitation of sub-sea resources. MODU designs include the following:

(1) Bottom bearing units, which include:

(i) Self-elevating (or jack-up) units with moveable, bottom bearing legs capable of raising the hull above the surface of the sea; and

(ii) Submersible units of ship-shape, barge-type, or novel hull design, other than a self-elevating unit, intended for operating while bottom bearing.

(iii) Surface units with a ship-shape or barge-type displacement hull of single or multiple hull construction intended for operating in a floating condition, including semi-submersibles and drill ships.

IAW 46CFR 11.468 Officer endorsements for service on mobile offshore drilling units (MODUs) authorize service on units of any gross tons upon ocean waters while on location or while underway, as restricted on the endorsement, except when moving independently under their own power.

## **Examination Structure Sheet Index**

### **Mobile Offshore Drilling Unit Endorsements**

#### **OFFSHORE INSTALLATION MANAGER (OIM):**

##### **Original**

OIM: Unrestricted	ESS 6-1
OIM: Surface Units on Location	ESS 6-2
OIM: Surface Units Underway	ESS 6-3
OIM: Bottom Bearing Units on Location	ESS 6-4
OIM: Bottom Bearing Units Underway	ESS 6-5

##### **Renewal**

Offshore Installation Manager	ESS 6-6
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#### **BARGE SUPERVISOR (BS):**

##### **Original**

Barge Supervisor	ESS 6-7
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##### **Renewal**

Barge Supervisor	ESS 6-8
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#### **BALLAST CONTROL OPERATOR (BCO):**

##### **Original**

Ballast Control Operator	ESS 6-9
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##### **Renewal**

Ballast Control Operator	ESS 6-10
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EXAMINATION STRUCTURE SHEET NO. <b>6-1</b>	Endorsement - Tonnage Group- Route- Action-	<b>OFFSHORE INSTALLATION MANAGER MOBILE OFFSHORE DRILLING UNIT UNRESTRICTED ORIGINAL ISSUE</b>	EXAM CODE <b>92FA</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
921XX MODU Operations		50	70
922XX Deck General, Deck Safety and Environmental Protection		60	70

**\* LICENSING NOTES**

**46CFR 11.903(b)**

Applicants for this endorsement who hold Master AGT Oceans are only required to complete the required service and training, **NO TESTING IS REQUIRED.**

Any applicant holding a restricted endorsement can **Increase the Scope** of their endorsement to **Unrestricted OIM** by successfully completing Module 921XX MODU Operations

EXAMINATION STRUCTURE SHEET NO. <b>6-2</b>	Endorsement - Tonnage Group- Route- Action-	<b>OFFSHORE INSTALLATION MANAGER MOBILE OFFSHORE DRILLING UNIT SURFACE UNITS ON LOCATION ORIGINAL ISSUE</b>	EXAM CODE <b>92FA</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
931XX Surface Units on Location Operations		30	70
922XX Deck General, Deck Safety and Environmental Protection		60	70

EXAMINATION STRUCTURE SHEET NO. <b>6-3</b>	Endorsement - Tonnage Group- Route- Action-	<b>OFFSHORE INSTALLATION MANAGER MOBILE OFFSHORE DRILLING UNIT SURFACE UNITS UNDERWAY ORIGINAL ISSUE</b>	EXAM CODE <b>92FA</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
941XX Surface Units Underway Operations		30	70
922XX Deck General, Deck Safety and Environmental Protection		60	70

EXAMINATION STRUCTURE SHEET NO. <b>6-4</b>	Endorsement - Tonnage Group- Route- Action-	<b>OFFSHORE INSTALLATION MANAGER MOBILE OFFSHORE DRILLING UNIT BOTTOM BEARING UNITS ON LOCATION ORIGINAL ISSUE</b>	EXAM CODE <b>92FA</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
951XX Bottom Bearing Units on Location Operations		30	70
922XX Deck General, Deck Safety and Environmental Protection		60	70



EXAMINATION STRUCTURE SHEET NO. 6-5	Endorsement - Tonnage Group- Route- Action-	<b>OFFSHORE INSTALLATION MANAGER MOBILE OFFSHORE DRILLING UNIT BOTTOM BEARING UNITS UNDERWAY ORIGINAL ISSUE</b>	EXAM CODE <b>92FA</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
961XX Bottom Bearing Units Underway Operations		30	70
922XX Deck General, Deck Safety and Environmental Protection		60	70

\* **SERVICE REQUIREMENT**

**46CFR11.470**

EXAMINATION STRUCTURE SHEET NO. 6-6	Endorsement - Tonnage Group- Route- Action-	<b>OFFSHORE INSTALLATION MANAGER MOBILE OFFSHORE DRILLING UNIT ALL RENEWAL</b>	EXAM CODE <b>92RE</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
929XX Refresher Exercise		30	90

\* **SERVICE REQUIREMENT**

**46CFR10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

EXAMINATION STRUCTURE SHEET NO. 6-7	Endorsement - Tonnage Group- Route- Action-	<b>BARGE SUPERVISOR MOBILE OFFSHORE DRILLING UNIT ORIGINAL ISSUE</b>	EXAM CODE <b>91AA</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
911XX MODU Operations		50	70
912XX Deck General, Deck Safety and Environmental Protection		60	70

\* **SERVICE REQUIREMENT**

**46CFR11.472**

EXAMINATION STRUCTURE SHEET NO. <b>6-8</b>	Endorsement - <b>BARGE SUPERVISOR</b> Tonnage Group- <b>MOBILE OFFSHORE DRILLING UNIT</b> Route- Action- <b>RENEWAL</b>	EXAM CODE <b>91RE</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
919XX Refresher Exercise		30
		<b>MINIMUM SCORE</b>
		90

\* **SERVICE REQUIREMENT**

**46CFR10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

EXAMINATION STRUCTURE SHEET NO. <b>6-9</b>	Endorsement - <b>BALLAST CONTROL OPERATOR</b> Tonnage Group- <b>MOBILE OFFSHORE DRILLING UNIT</b> Route- Action- <b>ORIGINAL ISSUE</b>	EXAM CODE <b>90AA</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
901XX MODU Operations		70
902XX Deck General, Deck Safety and Environmental Protection		60
		<b>MINIMUM SCORE</b>
		70

\* **SERVICE REQUIREMENT**

**46CFR11.474**

EXAMINATION STRUCTURE SHEET NO. <b>6-10</b>	Endorsement - <b>BALLAST CONTROL OPERATOR</b> Tonnage Group- <b>MOBILE OFFSHORE DRILLING UNIT</b> Route- Action- <b>RENEWAL</b>	EXAM CODE <b>90RE</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
909XX Refresher Exercise		30
		<b>MINIMUM SCORE</b>
		90

\* **SERVICE REQUIREMENT**

**46CFR10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

## **Chapter 3-Section 7**

### **Deck Rating Endorsements**

## **SECTION SEVEN:     Deck Rating Endorsements**

**Lifeboatman** Regulations can be found in 46CFR 12.10

**Able Seaman** regulations can be found in 46CFR 12.05

IAW 46CFR12.05-1(c) The following categories of able seaman are established:

- (1) Able Seaman—Any Waters, Unlimited.
- (2) Able Seaman—Limited.
- (3) Able Seaman—Special.
- (4) Able Seaman—Special (OSV).

IAW US Code Title 46/II Part E

- (1) 7311 Able Seaman-Sail
- (2) 7311a Able Seaman- Fishing Industry

**Tankerman** Regulations can be found in 46CFR 13.0

## **Examination Structure Sheet Index**

### **Deck Rating Endorsements**

#### **LIFEBOATMAN:**

##### **Original**

Lifeboatman: Unlimited ESS 7-1

##### **Renewal**

Lifeboatman: Unlimited ESS 7-2

##### **Original**

Lifeboatman: Limited ESS 7-3

##### **Renewal**

Lifeboatman: Limited ESS 7-4

#### **ABLE SEAMAN:**

##### **Original**

AB: Unlimited/Limited/Special/OSV Special/Fishing Industry ESS 7-5

##### **Renewal**

AB: Unlimited/Limited/Special/OSV Special/Fishing Industry ESS 7-6

##### **Original**

AB: Sail ESS 7-7

##### **Renewal**

AB: Sail ESS 7-8

##### **Practical Assessment**

Marlinespike Seamanship ESS 7-9

#### **TANKERMAN:**

##### **Renewal**

Tankerman: PIC or Engineer- Dangerous Liquids ESS 7-10

Tankerman: PIC or Engineer- Liquefied Gas ESS 7-11

Tankerman: PIC Barge Dangerous Liquids ESS 7-12

Tankerman: PIC Barge Liquefied Gas ESS 7-13

Tankerman: Assistant Dangerous Liquids ESS 7-14

Tankerman: Assistant Liquefied Gas ESS 7-15

EXAMINATION STRUCTURE SHEET NO. 7-1	Endorsement - Tonnage Group- Route- Action-	<b>LIFEBOATMAN UNLIMITED ANY WATERS ORIGINAL ISSUE</b>	EXAM CODE <b>48AA</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
481XX Deck Safety and Rules of the Road		70	70

\* **SERVICE REQUIREMENT**

**46CFR12.10-3**

\* **LICENSING NOTES**

Successful completion of a Lifeboat practical assessment is required. The assessment is not given at the Regional Exams Centers and must be completed at a USCG approved facility/school or via NMC Policy Letter 08-01.

EXAMINATION STRUCTURE SHEET NO. 7-2	Endorsement - Tonnage Group- Route- Action-	<b>LIFEBOATMAN UNLIMITED ANY WATERS RENEWAL</b>	EXAM CODE <b>48RE</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
489XX Refresher Exercise		30	90

\* **SERVICE REQUIREMENT**

**46CFR10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

Engineers holding Lifeboatmen renewing their credential with closely related shoreside experience **must take** the above module in addition to any engineering modules required for renewal.

EXAMINATION STRUCTURE SHEET NO. 7-3	Endorsement - Tonnage Group- Route- Action-	<b>LIFEBOATMAN LIMITED (Vessels not equipped with lifeboats) ANY WATERS ORIGINAL ISSUE</b>	EXAM CODE <b>44BA</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
441XX Survival Craft		50	70

**\* LICENSING NOTES**

Successful completion of a Personal Survival Craft practical assessment is required. The assessment is not given at the Regional Exams Centers and must be completed at a USCG approved facility/school or via NMC Policy Letter 08-01. The successful completion of a USCG Personal Survival techniques course is required.

EXAMINATION STRUCTURE SHEET NO. 7-4	Endorsement - Tonnage Group- Route- Action-	<b>LIFEBOATMAN LIMITED (Vessels not equipped with lifeboats) ANY WATERS RENEWAL</b>	EXAM CODE <b>44RE</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
449XX Refresher Exercise		20	90

**\* SERVICE REQUIREMENT**

**46CFR10.227**

**\* LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

Engineers holding Lifeboatmen Limited renewing their credential with closely related shoreside experience **must take** the above module in addition to any engineering modules required for renewal.

EXAMINATION STRUCTURE SHEET NO. 7-5	Endorsement - Tonnage Group-  Route- Action-	<b>ABLE SEAMAN UNLIMITED, LIMITED, SPECIAL SPECIAL OSV AND FISHING INDUSTRY ANY WATERS ORIGINAL ISSUE</b>	EXAM CODE <b>45AA</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
451XX Deck General and Navigation General		50	70
452XX Deck Safety and Rules of the Road		50	70

\* **SERVICE REQUIREMENT**

**46CFR 12.05-7  
US Code Title 46/II Part E 7311a**

\* **LICENSING NOTES**

Successful completion of a Practical Marlinspike Seamanship Demonstration is required. The assessment is given at the Regional Exams Centers but may ALSO be completed at a USCG approved facility/school.

Applicants applying for any Able Seaman endorsement must successfully obtain a Lifeboatman endorsement

Applicants holding any Limited Able Seaman endorsements, (except AB Sail), may obtain Able Seaman Unlimited without further examination upon presenting the required sea service.

EXAMINATION STRUCTURE SHEET NO. 7-6	Endorsement - Tonnage Group-  Route- Action-	<b>ABLE SEAMAN UNLIMITED, LIMITED, SPECIAL SPECIAL OSV AND FISHING INDUSTRY ANY WATERS RENEWAL</b>	EXAM CODE <b>45RE</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
459XX Refresher Exercise		30	90

\* **SERVICE REQUIREMENT**

**46CFR10.227**

\* **LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.



EXAMINATION STRUCTURE SHEET NO. 7-7	Endorsement - Tonnage Group- Route- Action-	<b>ABLE SEAMAN SAIL ANY WATERS ORIGINAL ISSUE</b>	EXAM CODE <b>43AB</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
431XX Deck General and Navigation General		50	70
432XX Deck Safety and Rules of the Road		50	70

**\* SERVICE REQUIREMENT**

**US Code Title 46/II Part E 7311**

**\* LICENSING NOTES**

Successful completion of a Practical Marlinspike Seamanship Demonstration is required. The assessment is given at the Regional Exams Centers but may ALSO be completed at a USCG approved facility/school.

Applicants applying for any Able Seaman endorsement must successfully obtain a Lifeboatman endorsement

EXAMINATION STRUCTURE SHEET NO. 7-8	Endorsement - Tonnage Group- Route- Action-	<b>ABLE SEAMAN SAIL ANY WATERS RENEWAL</b>	EXAM CODE <b>43RE</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>	<b>MINIMUM SCORE</b>
439XX Refresher Exercise		30	90

**\* SERVICE REQUIREMENT**

**46CFR10.227**

**\* LICENSING NOTES**

Renewal Modules are take home exams issued to the mariner by the Regional Exam Centers. It is recommended that completed exams must be returned to the Regional Exam Center for grading within thirty days in order to assure the exam cycle, including retakes, is completed within ninety days.

EXAMINATION STRUCTURE SHEET NO. 7-9	Endorsement - Tonnage Group- Route- Action-	<b>ABLE SEAMAN UNLIMITED, LIMITED, SPECIAL, SPECIAL OSV ANY WATERS MARLINSPIKE SEAMANSHIP ASSESSMENT</b>	EXHIBIT
REQUIRED KNOT		NOTE	TIME LIMIT
One eye splice OR short splice, strands must be whipped		Required	15 Minutes
Bowline		Required	15 minutes for all 10
Square Knot		Required	15 minutes for all 10
Clove Hitch		Required	15 minutes for all 10
Sheet Bend		Required	15 minutes for all 10
Carrick Bend		May be one of six additional demonstrated	15 minutes for all 10
Rolling Hitch		May be one of six additional demonstrated	15 minutes for all 10
Stopper Hitch		May be one of six additional demonstrated	15 minutes for all 10
French Bowline		May be one of six additional demonstrated	15 minutes for all 10
Stage Hitch		May be one of six additional demonstrated	15 minutes for all 10
Running Bowline		May be one of six additional demonstrated	15 minutes for all 10
Bowline on a Bight		May be one of six additional demonstrated	15 minutes for all 10
Fisherman's Bend		May be one of six additional demonstrated	15 minutes for all 10
Timber hitch		May be one of six additional demonstrated	15 minutes for all 10
Catspaw		May be one of six additional demonstrated	15 minutes for all 10
Figure Eight		May be one of six additional demonstrated	15 minutes for all 10
Barrel Hitch		May be one of six additional demonstrated	15 minutes for all 10
Round Turn and Two Half Hitches		May be one of six additional demonstrated	15 minutes for all 10
Double Becket Bend		May be one of six additional demonstrated	15 minutes for all 10

**\* REQUIREMENT**

**46CFR 12.059(c)**

All applicants for an Able Seaman Endorsement must demonstrate knowledge and ability to make principal knots, bends, splices and hitches.

A total of ten knots must be successfully demonstrated within a 15 minute time limit. Four are required, six additional knots must be chosen from the list.

Applicants must successfully demonstrate seven of the ten knots and successfully demonstrate the whipping to successfully demonstrate proficiency.

**\* ASSESSMENT NOTES**

1. Spliced line may not be reused.
2. The demonstration must be completed at a USCG approved facility/school.
3. A standard format Letter of Proficiency may be accepted in lieu of the marlinspike seamanship demonstration.

# **ABLE SEAMAN LETTER OF PROFICIENCY IN MARLINESPIKE SEAMANSHIP ASSESSMENT**

## **Person Observing the Demonstration**

1. Your assistance in administering the practical portion of the Able Seaman examination required under 46 CFR 12.05-9(c) is appreciated. Certification of the mariner's ability to demonstrate proficiency in performing the marlinespike skills listed in ESS 5-9 will enable the issuance of their Able Seaman's certification.
2. The demonstration of ability shall be witnessed by a designated examiner as part of an approved or accepted training course, a vessel Master or other officer licensed for service on vessels of over 200 gross registered tons, an appropriately trained Coast Guard Officer, or a responsible person authorized in writing by the Officer in Charge Marine Inspection.

**To: Officer in Charge Marine Inspection (Regional Examination Center)**

**Subj: Certification of Performance of Practical Ability**

This is to certify that I observed a successful demonstration of the applicant's proficiency, as indicated on the reverse, in the principal knots, bends, splices, and hitches in common use by:

**Applicant's Name:**

**Mariner Reference Number:**

## **CERTIFIED BY:**

**Name:**

**Mariner Number:**

**Title, Rank or Rate:**

**Vessel, Office or Course:**

**Signature:**

**Date:**

EXAMINATION STRUCTURE SHEET NO. 7-10	Endorsement - Tonnage Group- Action- <b>TANKERMAN PIC OR TANKERMAN ENGINEER DANGEROUS LIQUIDS RENEWAL</b>	EXAM CODE <b>91TK</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
970XX Tankerman Dangerous Liquids		25
		90

EXAMINATION STRUCTURE SHEET NO. 7-11	Endorsement - Tonnage Group- Action- <b>TANKERMAN PIC OR TANKERMAN ENGINEER LIQUEFIED GAS RENEWAL</b>	EXAM CODE <b>91TK</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
971XX Tankerman Liquefied Gas		25
		90

EXAMINATION STRUCTURE SHEET NO. 7-12	Endorsement - Tonnage Group- Action- <b>TANKERMAN PIC BARGE DANGEROUS LIQUIDS RENEWAL</b>	EXAM CODE <b>91TK</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
972XX Tankerman Barge Dangerous Liquids		25
		90

EXAMINATION STRUCTURE SHEET NO. 7-13	Endorsement - Tonnage Group- Action- <b>TANKERMAN PIC BARGE LIQUEFIED GAS RENEWAL</b>	EXAM CODE <b>91TK</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
973XX Tankerman Barge Liquefied Gas		25
		90

EXAMINATION STRUCTURE SHEET NO. 7-14	Endorsement - Tonnage Group- Action- <b>TANKERMAN ASSISTANT DANGEROUS LIQUIDS RENEWAL</b>	EXAM CODE <b>91TK</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
974XX Tankerman Assistant Dangerous Liquids		25
		90

EXAMINATION STRUCTURE SHEET NO. 7-15	Endorsement - Tonnage Group- Action- <b>TANKERMAN ASSISTANT LIQUEFIED GAS RENEWAL</b>	EXAM CODE <b>91TK</b>
<b>MODULES</b>		<b>NUMBER OF QUESTIONS</b>
975XX Tankerman Assistant Liquefied Gas		<b>MINIMUM SCORE</b>
		25
		90

\* **SERVICE REQUIREMENT**

**46CFR10.227/46CFR13.120**

\* **LICENSING NOTES**

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